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ABSTRACT

A campus plan for the University of Miami is preceded by background information concerning the university and a discussion of the three basic concepts giving major direction to the plan--(1) identity--distinguishing the campus from its surroundings, (2) inward growth--concentration of the highest densities of development toward the center of the campus and effecting a transitional zone of lower density around the perimeter, and (3) perimeter parking. The general development plan is presented, giving special attention to components such as the land use plan, the density plan, and the electrical plan. Maps and sketches are included. Functions involved in implementation of the campus plan are discussed. (FS)

ED037917

# COMPREHENSIVE CAMPUS PLAN
# UNIVERSITY OF MIAMI
## CORAL GABLES FLORIDA

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ACKNOWLEDGMENTS

The process of campus planning is a team effort. The Plan incorporates a consensus of ideas and goals of administration, faculty, staff, students and citizens of the surrounding community. During three and one-half years of study at the University of Miami we have met with many people -- far too many to mention by name on this page. However, we would be remiss if we did not attempt to thank those, in addition to the officers named on the opposite page, who have been the most directly involved.

In addition to President Stanford and Vice-President Cohen (who served as chairman of the Planning Committee), we wish to thank Mr. Charles J. Cotterman, AIA, Staff Architect, for the day-to-day administration and coordination of the planning activitiy. We are especially grateful to Dr. J. Riis Owre, Associate Dean of the Faculties and Chairman of the Self-Study Committee; Mr. William F. McLaughlin, Business Manager; Mr. Matthew Borek, Director of the Physical Plant; Miss May A. Brunson, Dean of Women; Mr. Robert A. Hynes, Dean of Men; and Mr. George W. Smith, Registrar.

We are also grateful for the time and interest of the Honorable C. L. Dressel, Jr., Mayor of the City of Coral Gables, and the City Commission, who met with us and University officials to review the progress of the plan on several occasions.

April, 1967

CAUDILL ROWLETT SCOTT
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Coral Gables, Florida

# INTRODUCTION

Planning is a process, not a product. We have been involved in this process at the University of Miami for three and one-half years, but the process began with the founding of the University in 1925. This document is not a "master plan" in the static sense of the word. It is a progress report, dealing with the background, status and objectives of the planning effort at a point in time. To be useful, a plan must be a point of departure which can be adapted to changes in goals, educational program, enrollment, technology and the surrounding community.

The current planning activity is a corollary to the Golden Anniversary Development Program and the Self-Study for the Southern Association of Colleges and Schools. The major objective of the plan is to translate the goals and recommendations stated in the Self-Study into a physical campus which gains maximum value from every dollar spent.

There is more to this than merely providing enough square feet and parking spaces. The physical arrangement of the campus must not impede the desired educational process and its required support services. The character of the environment should stimulate academic endeavor in some areas, and provide relief from it in others. Emphasis belongs to the activities which are most important. Problems and distractions must be minimized. Overall unity and coherence must be created to identify the University of Miami as a dynamic and dignified institution of higher learning. This report contains a summary of guidelines developed over several years of study which should help achieve these objectives.

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# Background

## HISTORY AND LOCATION

When the University of Miami obtained its charter in April, 1925, the initial philosophy was that of a university, not that of a college which later expands. Emphasis was given to the unique opportunities to develop inter-American studies and to teaching and research programs in the problems of the tropics, as well as to creative work in arts and literature.

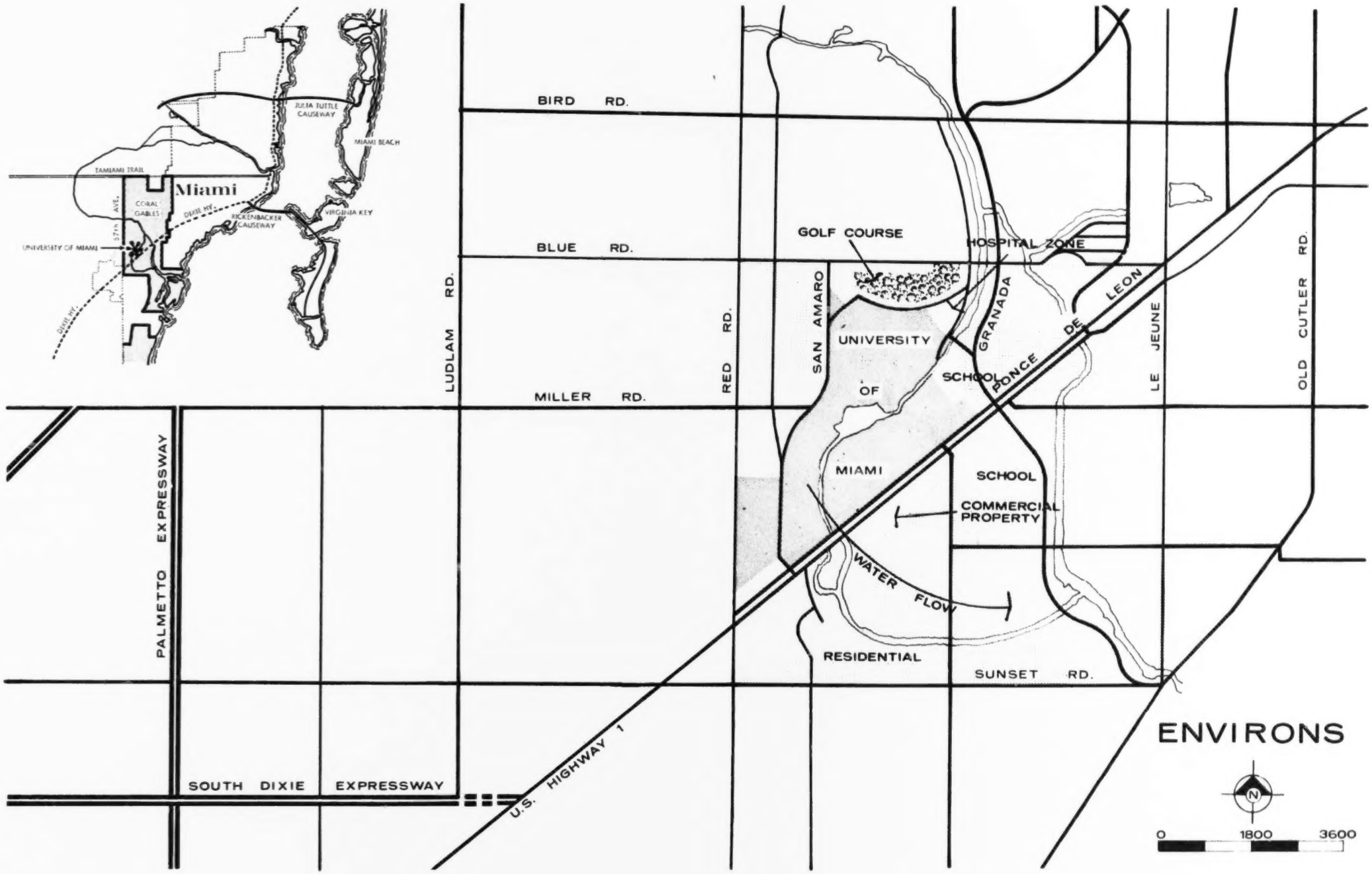
The University has thrived amid adversity. Three major disasters were overcome: The 1926 hurricane, the national depression, and World War II. During this period, classes were held in the old Anastasia Building north of the present main campus. Construction of the structural frame of the Merrick Building took place in 1926, but it stood naked for 24 years after the hurricane, and was completed, at last, in 1950. Meanwhile, other buildings were acquired or built at the North Campus. In 1945, plans were announced for a new campus to be built on the original site, where the skeleton of the Merrick Building and an apartment building, which later became the University Health Center, were standing at the time. In the next year, construction was started on the Memorial Classroom Building. Ensuing years saw a building boom. It included completion of the Merrick Building, the first Student Union, a 29-building dormitory complex, the Ring Theater and Joe and Emily Lowe Art Gallery. (see map, page 5)

The first of three basic phases of university development ended in 1952 with the death of the first president, Dr. Bowman F. Ashe.

The second phase, under the leadership of Dr. Jay F. W. Pearson, was a period of physical growth and educational experimentation. During this 10-year period, the enrollment grew from 10,000 to 13,000 students. Doctorate programs were expanded to a dozen disciplines. The physical plant was expanded nearly to its present form; since 1962, the Computing Center and Student Union expansion have been completed and construction is underway on the new Science Center and two high-rise Residence Hall towers.

The current period, beginning with the inauguration of Dr. Henry King Stanford as president in 1962, has been one of self-examination, consolidation and planning. Enrollment growth has been restrained in favor of qualitative improvements. Research has expanded. Organization has been modified, as programs have been also. The goals formulated in the Self-Study Report and the Golden Anniversary Development Program forecast a period of comparatively modest enrollment growth accompanied by solid improvement in depth of the educational program and physical plant.

Much of the unique potential of the University has its basis in geography. The Miami area is a natural bridge to the Central and Southern portions of our hemisphere, as well as to the mysteries of the oceans. In addition, the campus in the distinguished City of Coral Gables, within the Miami urban complex, has an ideal setting within an urban area. The map to the right shows the relationship of these areas. Principal access to the campus is by automobile, via U.S. Highway #1, augmented by Red Road, Ponce de Leon Boulevard, and Blue, Miller and Bird Roads.


Miami
TAMIAMI TRAIL
JULIA TUTTLE CAUSEWAY
MIAMI BEACH
37th AVE.
CORAL GABLES
DIXIE HY.
RICKENBACKER CAUSEWAY
VIRGINIA KEY
UNIVERSITY OF MIAMI
DIXIE HY.
BIRD RD.
BLUE RD.
MILLER RD.
LUDLAM RD.
RED RD.
SAN AMARO
GOLF COURSE
HOSPITAL ZONE
GRANADA
DE LEON
PONCE
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OLD CUTLER RD.
UNIVERSITY OF MIAMI SCHOOL
MIAMI SCHOOL
COMMERCIAL PROPERTY
WATER FLOW
RESIDENTIAL
SUNSET RD.
PALMETTO EXPRESSWAY
SOUTH DIXIE EXPRESSWAY
U.S. HIGHWAY 1
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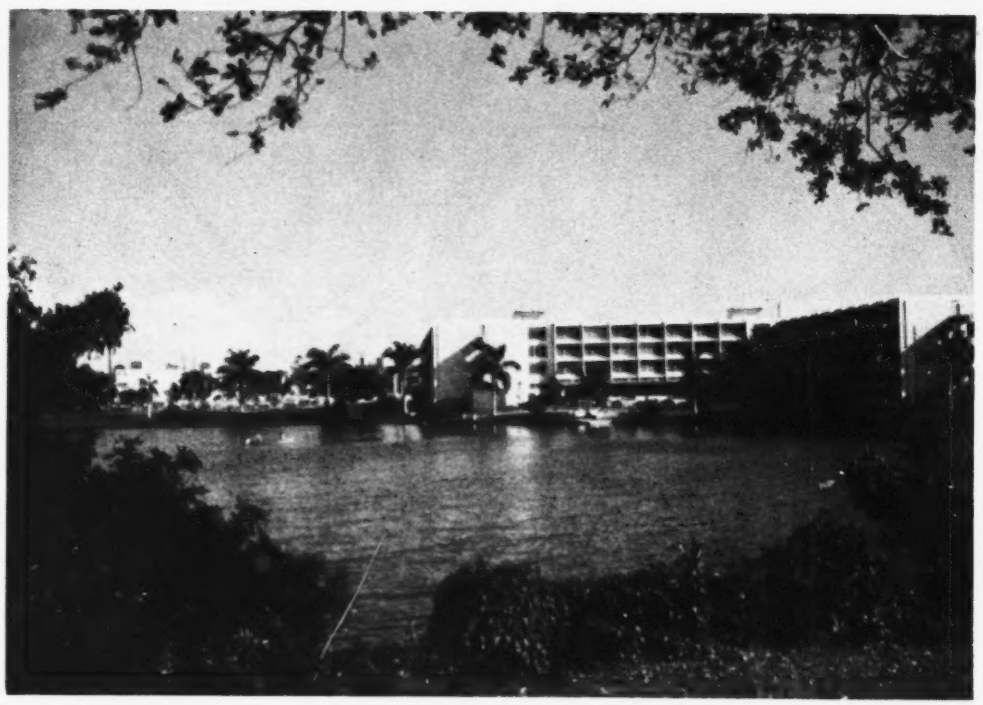


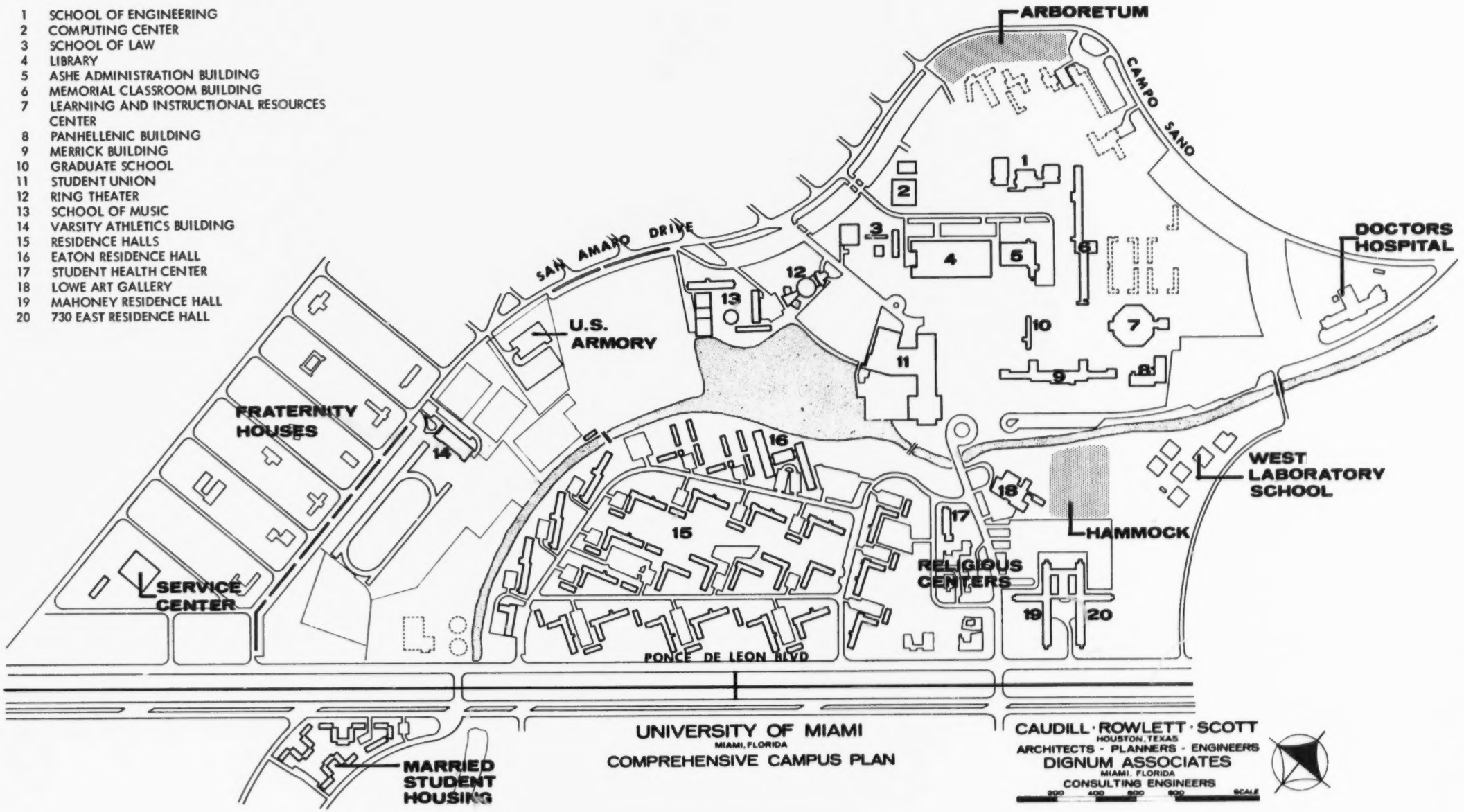
## CAMPUS ENVIRONMENT

The environment of the University of Miami campus reflects the general characteristics of an area richly endowed by nature. The campus was created by clearing the natural "hammock" or tropical forest. The variety of plant growth which the soil and climate will support makes it hard to resist the temptation to overplant with too many species, and the campus reflects this direction against unity and dignity. Many areas of the campus are lush and striking in appearance, but the total effect is not consistent. The same tendency carries over into the architecture of the area and on to the campus. Although many of the buildings have individual merit, they are not architecturally related; so, the total effect is one of contrast rather than coherence.

One of the many individual assets is the beautiful Student Lake, near the center of the campus. This provides a natural division between the academic and residential areas of the campus and a fine setting for each. Other attractive areas include the arboretum, a natural hammock, and several pleasant vistas and open spaces.

Recent closing of public streets which bisected the campus has resulted in notable improvement in the pedestrian character of the campus. In other areas of the core, automobiles detract from the campus environment and create serious conflicts with pedestrian flow.

1 SCHOOL OF ENGINEERING
2 COMPUTING CENTER
3 SCHOOL OF LAW
4 LIBRARY
5 ASHE ADMINISTRATION BUILDING
6 MEMORIAL CLASSROOM BUILDING
7 LEARNING AND INSTRUCTIONAL RESOURCES CENTER
8 PANHELLENIC BUILDING
9 MERRICK BUILDING
10 GRADUATE SCHOOL
11 STUDENT UNION
12 RING THEATER
13 SCHOOL OF MUSIC
14 VARSITY ATHLETICS BUILDING
15 RESIDENCE HALLS
16 EATON RESIDENCE HALL
17 STUDENT HEALTH CENTER
18 LOWE ART GALLERY
19 MAHONEY RESIDENCE HALL
20 730 EAST RESIDENCE HALL




UNIVERSITY OF MIAMI
MIAMI, FLORIDA
COMPREHENSIVE CAMPUS PLAN

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200 400 800 SCALE

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## PROGRAM

The basis for campus development is the educational program. The following summary, developed from interviews and documents, includes the main assumptions upon which the campus plan is founded.

### Major Goals and Philosophy

The major goals are threefold:

To be a truly outstanding independent university.

To cement its position as a leading inter-American institution.

To develop certain unique programs particularly appropriate to this university.

The following statements from the University of Miami Self-Study further explain the objectives of the University:

"It will maintain and fortify its traditions of academic freedom and of opportunity for individuals of all races and nationalities. It intends to become a major international center of learning.

"...the University will serve not only the ends of science but also those of the development of artistic appreciation and talent, and of the understanding of man as a moral and intelligent agent within the contending world of men.

"The emphasis...falls upon studies with genuine intellectual content, and upon the pursuit of principles."

### Educational Methods

Several measures are being taken to achieve the major goals, and others are recommended in the Self-Study. For planning purposes, the following methods are assumed:

1. Stricter admissions policies and the nature of programs will gradually change the student body to one of continuing higher academic qualifications, and will change the distribution of students so that there will be a much greater proportion in the upper division and in the graduate and professional schools.

2. The traditional divisions between the undergraduate and the graduate curriculum may be altered so that, for example, talented undergraduate students may take courses normally reserved for graduate students.

3. Curricula for graduate and professional students will open up new frontiers and will offer a broadening basis for the advancement of learning. Curricula for undergraduates will emphasize a broad general education, embodying new viewpoints of a developing society.

4. Particular interest will be placed in interdisciplinary programs which use new points of view and techniques.

5. Emphasis will be placed on the importance of research to support excellence in teaching. This will mean lighter teaching loads. It will also require adequate research space integrated with faculty offices and teaching facilities.

6. Consideration will be given to adding the following programs: Anthropology, Astronomy and Urban Studies.

7. Future planning will allow more generous space standards per student and faculty member to provide more seminars, private offices and special facilities.

8. The University should plan to acquire any contiguous property that might become available in the future.

## Educational Organization

The present educational organization might be referred to as a unified university with three horizontal elements: the separate lower division (University College), the degree-granting upper division schools and the Graduate School, Law School and School of Medicine. The real separation is that of the University College, which has its own administration and faculty. The upper division and graduate programs are served by a unified core of teaching departments. The administrative responsibility for advanced degrees is horizontal (the Graduate School) rather than vertical (by the school or academic discipline).

With the approved disestablishment of University College, which will take place in June 1968, the educational organization of the University will revert to the normal national pattern of two horizontal elements.

In making this change from separate lower division and upper division components to single baccalaureate units the University will maintain general education requirements. All of these, with the exception of a few electives, will be operated by units within the College of Arts and Sciences.

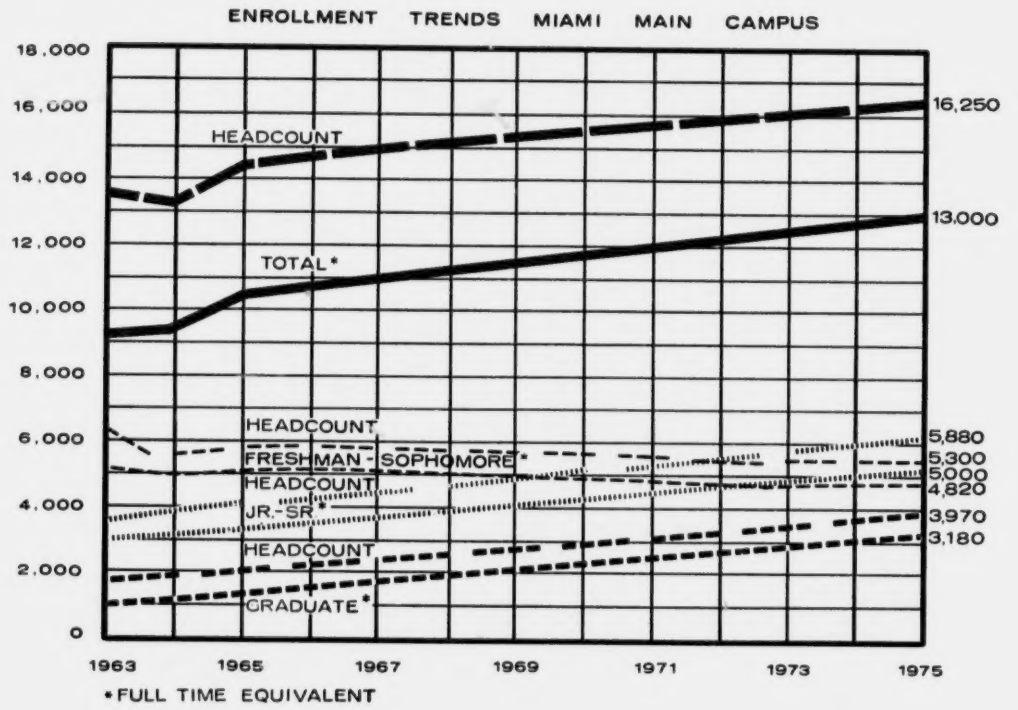
## Enrollment Growth

The University plans to control admissions in order to achieve the quality of educational goals desired. The enrollment will not be allowed to increase numerically according to past trends. There will also be a shift to a higher proportion of upper division and graduate enrollments, as shown in the accompanying graph.

## Independence

The University Board of Trustees has restated its intention that the University remain independent and free from political control.





## BUILDING PROGRAM

The following building requirements have been assumed for the planning period to 1975:

1. SCIENCE CENTER UNIT B. Approximately 320,000 gross square feet for academic programs and related research.

2. ART BUILDING. 50,000 gross square feet. Addition to Lowe Gallery, to house academic program.

3. DRAMA AND COMMUNICATION ARTS CENTER. 60,000 to 75,000 gross square feet of academic space and offices plus theater for drama and music.

4. GENERAL CLASSROOM AND OFFICE SPACE. 100,000 to 150,000 gross square feet. Entire amount should be planned, even if not required during planning period.

5. LAW SCHOOL ADDITION. Approximately 18,000 gross square feet.

6. ADMINISTRATION BUILDING. 70,000 gross square feet to house central administration now located in Ashe Building, plus student guidance and counseling programs.

7. ACTIVITIES BUILDING. To house indoor varsity athletics, conferences and convocations, large-scale cultural and social activities.

8. CONTINUING EDUCATION AND CONFERENCE CENTER. Modest first stage, 10,000 to 20,000 gross square feet, with provision for later expansion to 100,000 gross square feet.

9. SCIENCE CENTER EXPANSION. Approximately 200,000 gross square foot allowance for various institutes, centers and research programs.

10. RESIDENCE HALLS. Construction for 5,600 single students in addition to the 1,900 now permanently housed.

11. DINING FACILITIES. Four new units serving residence halls.

12. CENTRAL CHILLER UNITS. Four locations.

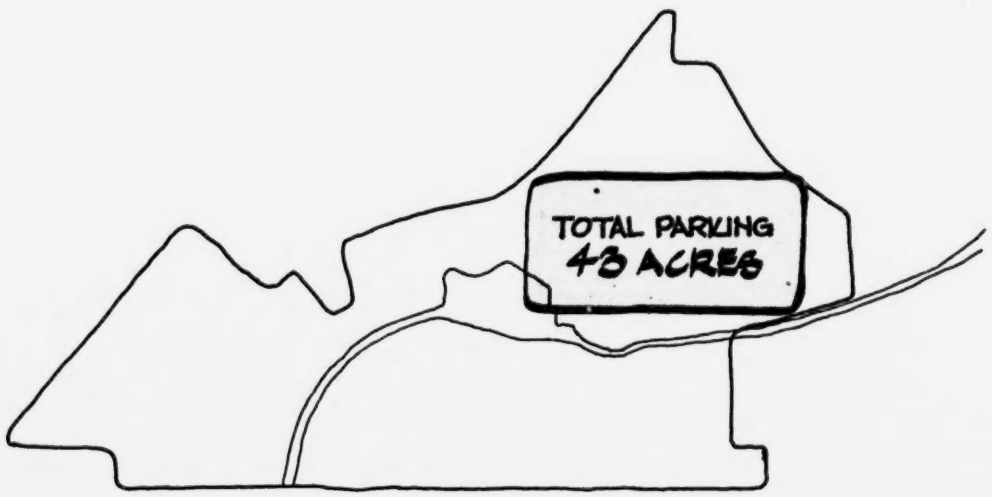
13. CENTRAL RECEIVING AND WAREHOUSE. To be located at existing service center.

## PARKING PROGRAM

The administration has decided not to allow the campus car population to increase solely on the basis of demand. Policies will be adopted which will hold the increase to slightly above current levels. The first of these policies is a restriction on car registrations by freshmen resident students, who have previously owned a high proportion of the total cars on campus. Approximately 5,000 parking spaces are now available on campus. This represents very nearly a saturation level, both in terms of environmental considerations and in terms of the need for land for other purposes. Considerable shifting of parking spaces will be required, even without much increase, as new building construction and landscape improvements force car storage out of the central area.

The projected parking requirements are shown in the table at the right. The diagram below illustrates the scale of the parking space requirement by comparing the area of parking to the area of the campus. Approximately 43 acres would be required for 5,400 car spaces.

| Category | No. Persons | Persons/ Car | Maximum Accumulation | Total Spaces |
|---|---|---|---|---|
| Faculty and Staff | 2,055 | 1.25 | 65% | 1,068 |
| Commuters | 8,750 | 1.25 | 45% | 3,150 |
| Residents (no freshmen cars) | | | | |
| Men | 2,400 | 4.0 | 100% | 600 |
| Women | 1,450 | 5.0 | 100% | 290 |
| Visitors | 300 | 1.0 | 100% | 300 |
| | | | | 5,408 |



## PLANNING OBJECTIVES

The primary objectives of the plan are twofold:

To create a physical environment which reflects the goals and philosophy of the University.

To achieve maximum efficiency of circulation, utilization of facilities and provision of services.

In order to achieve these objectives, the following guidelines and assumptions have been established:

1. Total design should stress unity on the campus, and transition from the density of activity on the campus to the surrounding residential community.

10 + 11

2. Compactness of development is desirable both for efficient use of land and to retain a functional pedestrian campus.

3. The 1975 plan will be based on use of existing property to meet all programmed requirements, with the exception of the existing city sewage treatment plant, which the University expects to acquire.

4. Major design emphasis should be placed on definition and unification of outdoor spaces.

5. A major public entrance to the campus should be developed to eliminate the present confusion of multiple entrances.

6. A coordinated system of utilities, including central chilled water distribution, will be an important requirement.

7. The existing perimeter parking policy should be extended and reinforced. Further development must increase capacity and make a positive contribution to the campus environment.

8. The campus lake, arboretum and hammock are to be retained.

9. The solution to parking problems must depend on surface lots and administrative control of vehicle use. Current planning cannot anticipate the financing of multi-story parking structures.

10. No married students or faculty will be housed on the main campus.

11. Academic space will be generally assignable, rather than having a departmental designation, whenever possible.

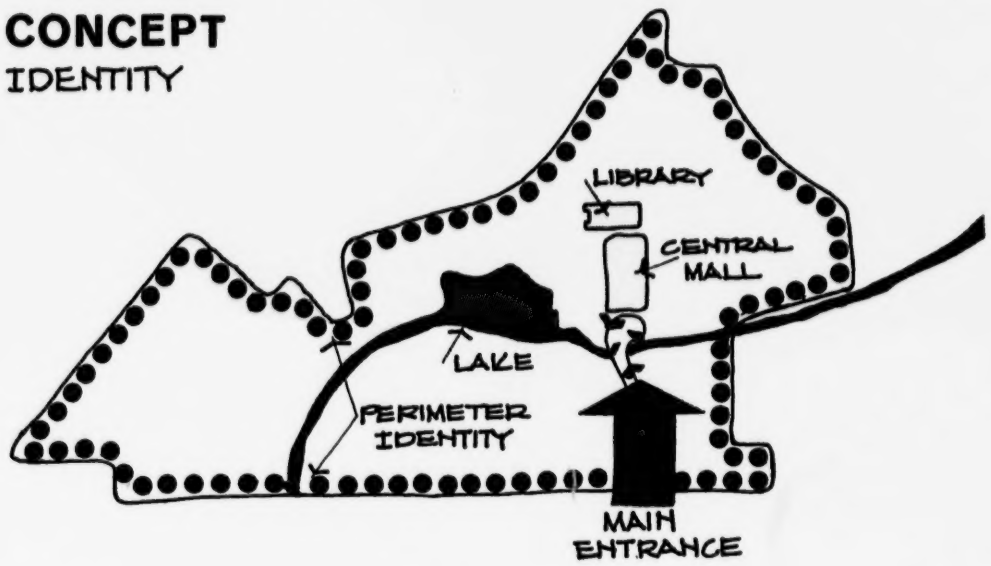
12. Sculpture and significant items of historical interest should be utilized in the campus design.

13. The Religious Centers, Panhellenic Building and fraternity houses will remain in their present use through the planning period.

# CONCEPTS



**CONCEPT**
IDENTITY




## BASIC CONCEPTS

Three basic concepts gave major direction to the campus plan. These concepts should become the essential criteria for evaluating any future revisions, for they are the fundamental physical response to the goals of the University and the needs of the faculty and students.

## IDENTITY

Early inspections and interviews brought out the problem of a muddled physical identity. There were many points of access to the campus, but none which really appeared as a main entrance. In some places, such as near Doctors Hospital, it was difficult to tell where the campus began and ended. There was no theme of architectural or landscape unity. Although attractive in many areas, the University did not present an image to distinguish it from its surroundings or make a physical statement of its institutional character.

One of the basic concepts, then, is to enhance the identity of the campus. This can be done in several ways:

1. Develop a major public entrance at a proper location to gain access, visually and physically, to key facilities.

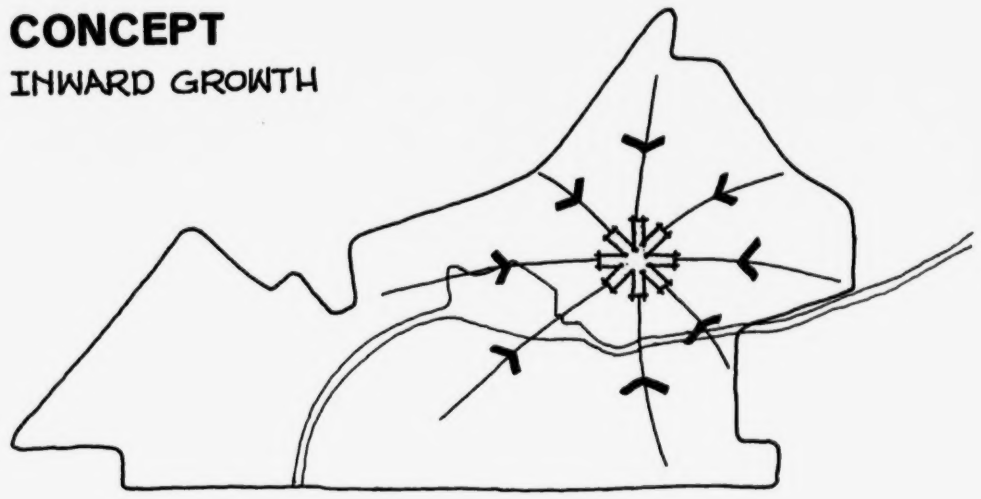
2. Establish a consistent perimeter definition, through landscape treatment and transition from the surrounding residential community.

3. Emphasize key environmental features.

4. Unify the landscape and architectural character of the campus.

## INWARD GROWTH

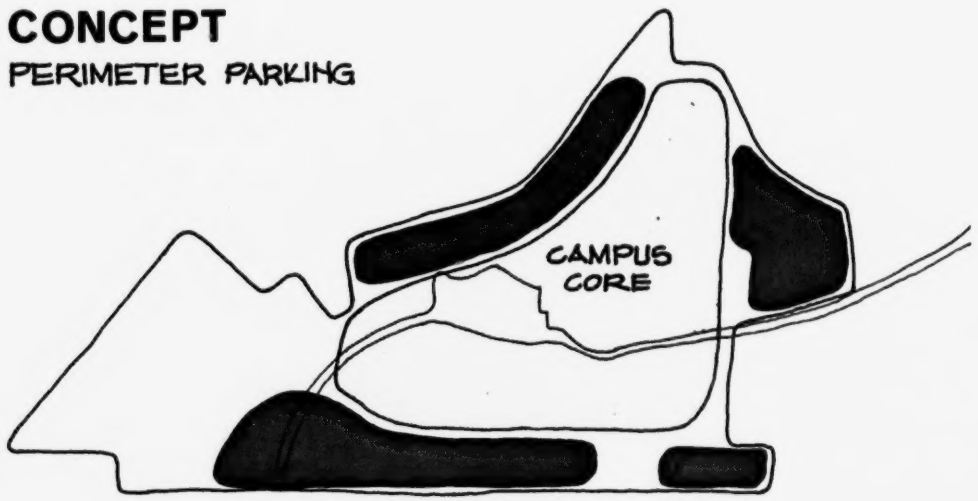
The concept of inward growth is a response to the needs of the pedestrian and to the surrounding residential community. Acquisition of additional land across the existing perimeter streets is not desirable. Compact development will reinforce the unified academic program through proximity of facilities and efficiency of pedestrian circulation. The residential character of the community can be protected by concentrating the highest densities of development toward the center of the campus and effecting a transitional zone of lower density around the perimeter.






## PERIMETER PARKING

The idea of perimeter parking reinforces the other main objectives of the plan. A belt of well-landscaped parking areas can guarantee a low density transitional zone on the perimeter of the campus. The concept of inward growth requires that interior land be used more efficiently for new buildings. And the efficiency of pedestrian circulation is greatly increased if vehicle conflicts are removed, and people do not have to walk through acres of parked cars on their way from one class to the next. The benefits to the environmental character of the campus are obvious.



# GENERAL DEVELOPMENT PLAN

LANDSCAPED PLAZA (GROUND COVER, SHRUBS, TREES)

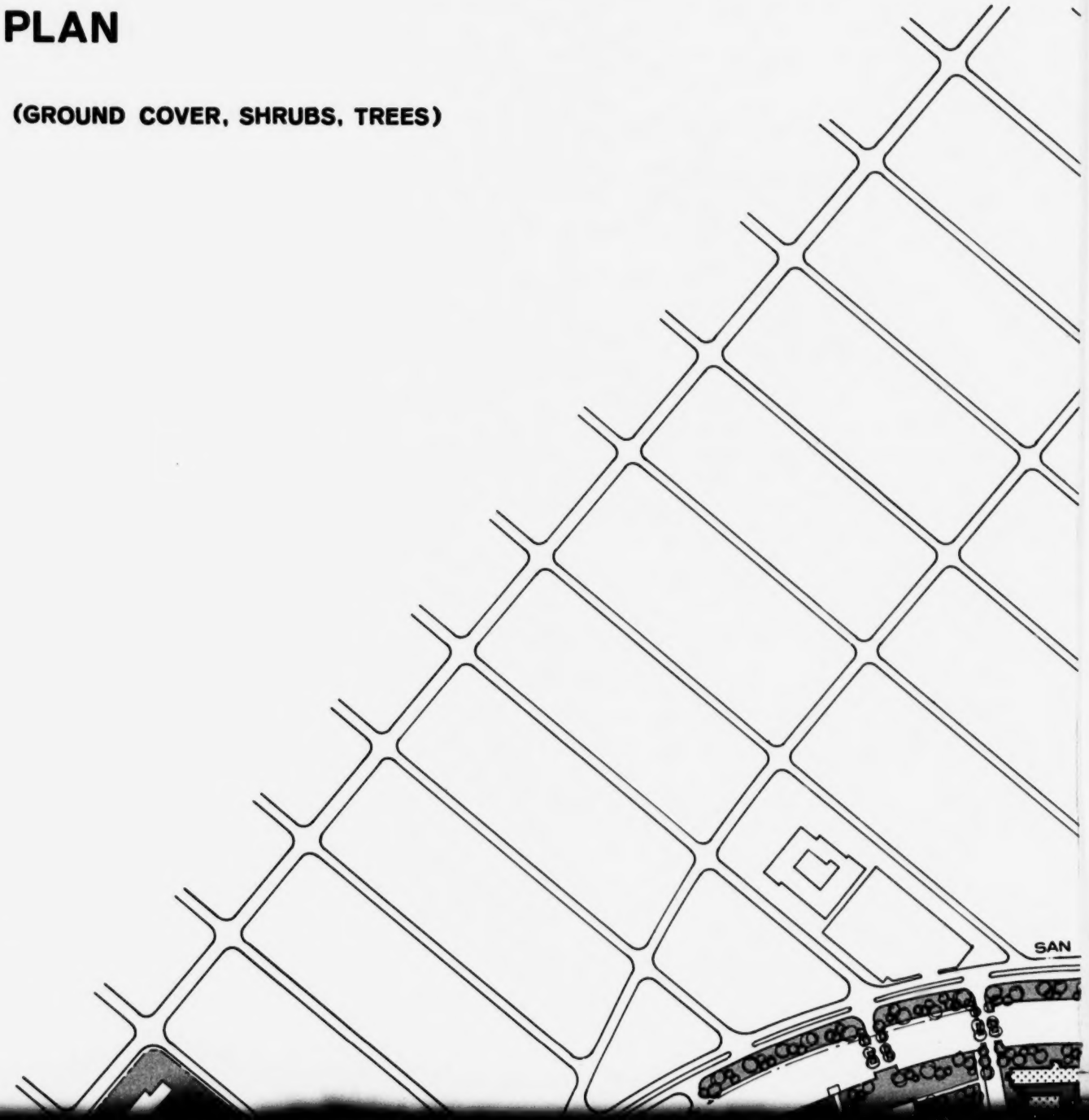
EXISTING TREES

NEW TREES

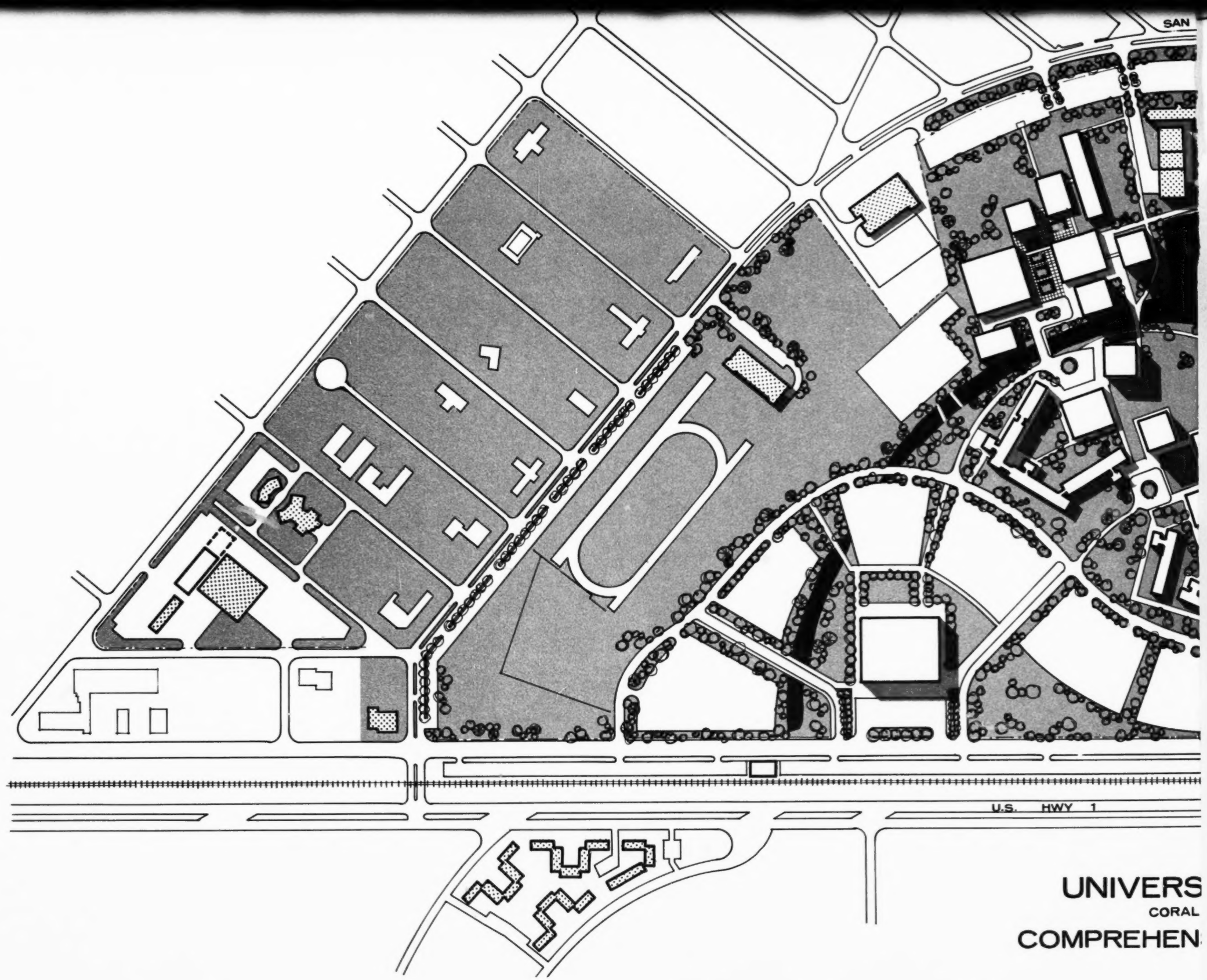
TURF

EXISTING BUILDINGS

FUTURE BUILDINGS



CAMPO SANO
DRIVE
AMARO

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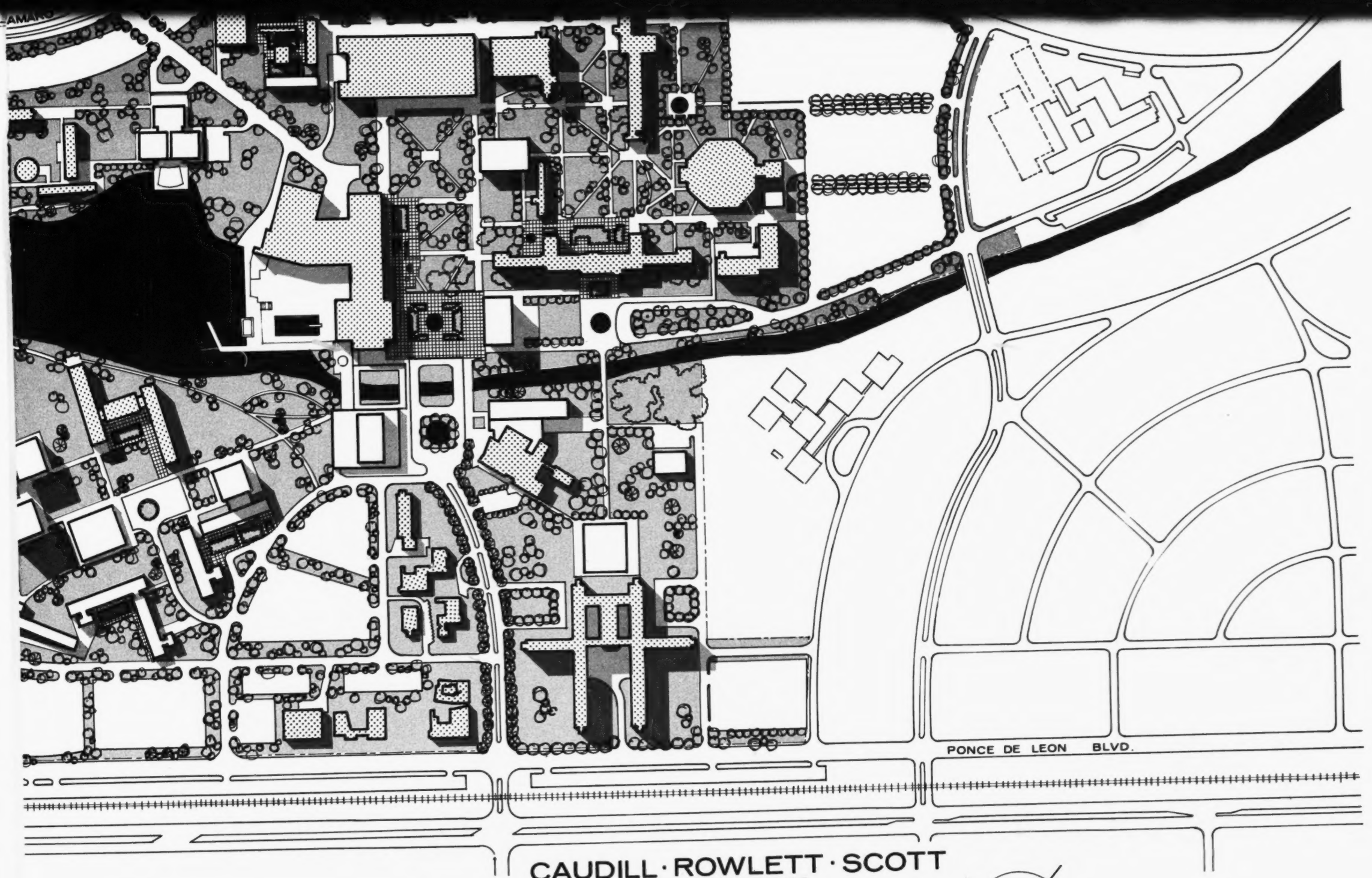


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SIVE CAMPUS PLAN

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ARCHITECTS - PLANNERS - ENGINEERS
DIGNUM ASSOCIATES
CORAL GABLES, FLORIDA
CONSULTING ENGINEERS

200 400 600 800 FEET

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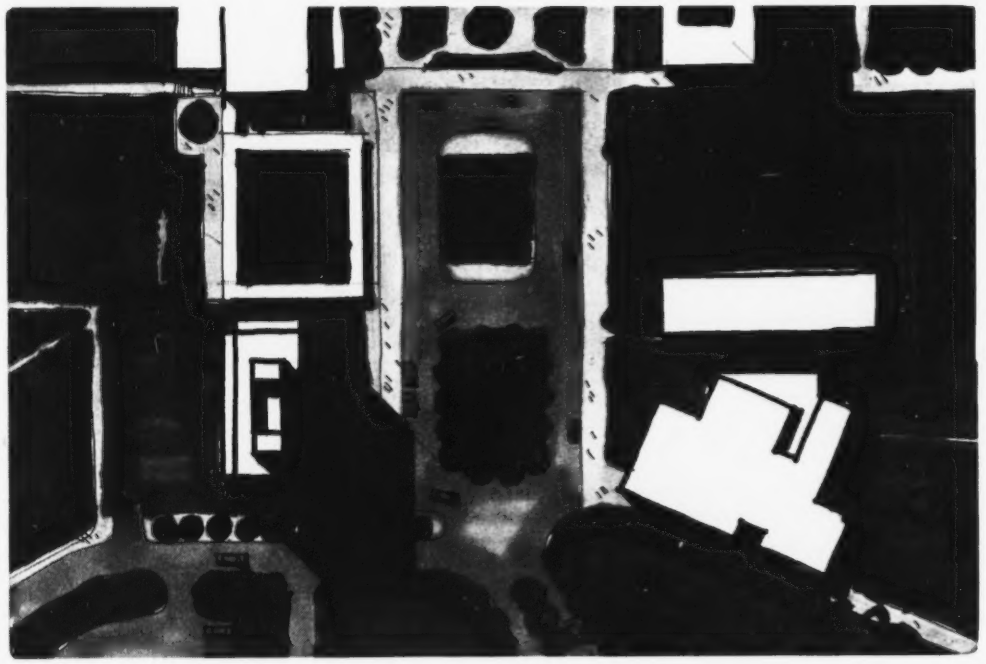
## GENERAL DEVELOPMENT PLAN

A general view of the campus plan appears on the map at the left. The intent of this map and the accompanying sketches and comments is to present an overall view of the character of the proposed campus and the relationship of its elements. Details of each element of the plan, land use, building use, circulation, density, and utilities, follow in the remainder of the report.

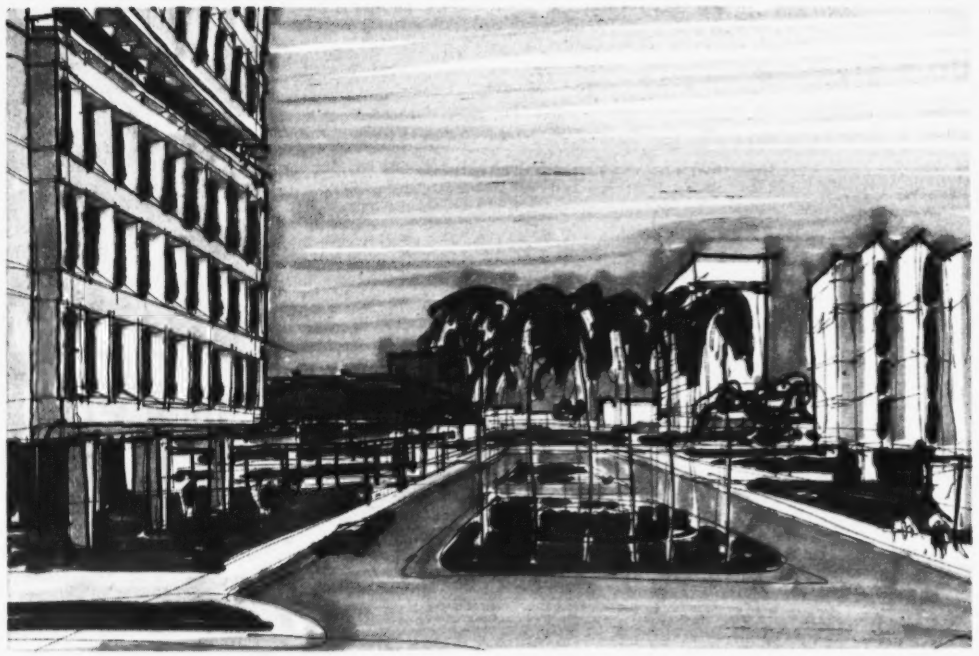
Four landscape elements are indicated to establish the general character of outdoor spaces. Comparative heights of buildings are indicated by their shadows, adding the third dimension. The manner in which the Plan incorporates the three basic concepts is also evident.

The main entrance is established from U.S. Highway #1 and Ponce de Leon on a tree-lined boulevard terminating in a large plaza. From this entrance and plaza, access is gained to a new administration building, the Student Union, Library, several classroom and office buildings, and the Lowe Gallery and Art School. The main entrance also leads to the housing areas and religious centers. The two sketches at the right show the automobile terminus, between the Lowe Gallery and proposed administration building, in more detail. This area could contain significant historical sculpture, now located in other places on the campus, to enhance it as a focal point. It is suggested that the administration building be built over a large plaza with parking below it, and connected to the Union by a major covered walk, to make the most of this entry as a public drop-off point to the pedestrian campus.

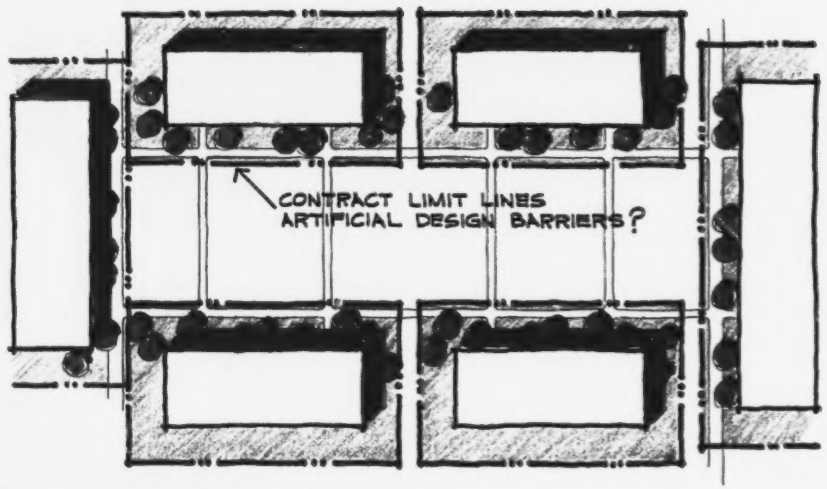
The plan also shows the concentration of new construction on the interior of the campus, with the perimeter dedicated







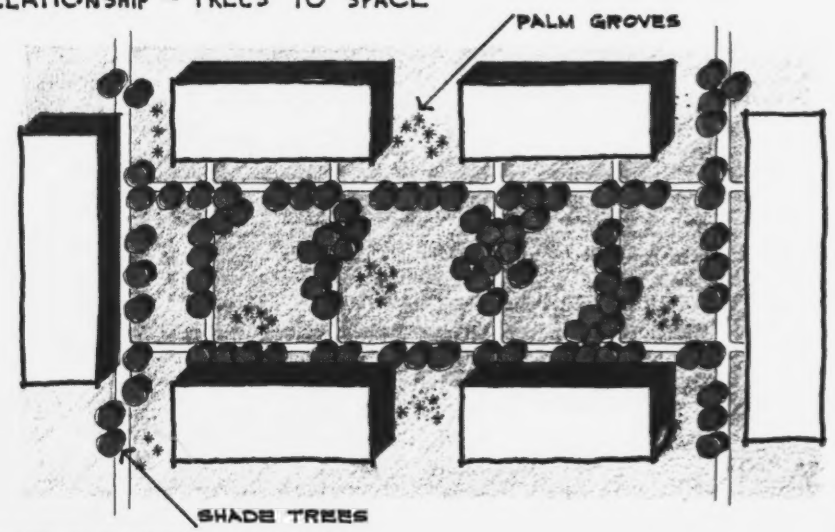
RELATIONSHIP - TREES TO BUILDINGS




LANDSCAPE ANALYSIS



RELATIONSHIP - TREES TO SPACE




LANDSCAPE ANALYSIS

to landscaped parking areas, recreation fields and arboretum. The connection of San Amaro Drive and Campo Sano has been shifted to the northwest, which allows expansion of the arboretum and further transition between Coral Gables residences and the growing science complex.

The lake is emphasized as a setting for new buildings by opening up spaces and vistas around it. It is further suggested that other small water features be designed to recall the lake in areas where it is not visible.

## Landscape Design

Because of the variety of architectural design, effective landscape design will be the major factor in achieving campus unity. The major goals of landscape design should be simplicity and dignity. This will call for restraint in selection of plant materials in an area so richly endowed by nature with a variety of handsome species. The result of such restraint will be greater beauty and less maintenance cost.

This same motivation toward simplicity and unity should be reflected in the design of outdoor lighting and campus signs. Systems of fixtures are now available for application to lighting of parking lots, walks, buildings and other features. Graphics consultants can help coordinate the design of street signs, building signs, directional instructions and all other campus signs and symbols.

The accompanying quick sketches, which were developed during the design process, may help to illustrate the desirable landscape chracter. One major problem on many campuses is that a limited amount of planting is included in each building project, without an overall plan for relating to and connecting the open spaces between buildings. Plant materials may enclose spaces, fill spaces, form screens, or provide canopies to walk beneath. Shade trees should be planted along walks instead of hiding buildings. Feature specimens, such as palms, can be used to beautify building settings. Trees and hedges should be used to screen parking lots, utility structures and service entrances. The functional and esthetic uses of plants, walks and outdoor furnishings can be handled with a minimum of needless variety to blend buildings and open spaces into a unified whole.

Plaza areas may be developed for gatherings, study, or where pedestrian circulation is heavy. Variety may be introduced into these small areas with different paving materials, ground cover plants, shrubs and flowering trees to the extent needed to provide relief without disrupting the unity of the campus.

The top sketch at the right illustrates the use of shade and palm trees to provide both function and beauty. The lower sketch shows how the lake could be used as a setting for high-rise residence halls, which would leave open space and views around the lake, while increasing the number of resident students.

## LAND USE PLAN

The land use plan is the basic foundation for development. It establishes a framework within which flexibility of designing future building arrangements can occur.

The land use plan locates areas for development of six general functions. It is based on the existing pattern of development, with certain alterations (notably in housing and parking areas) which will promote the basic concepts of the Plan.

The academic zone contains faculty offices and all space for scheduled teaching with the exception of Physical Education. This includes outdoor areas such as the arboretum. The academic area is confined to its present limits, with increased density of development, to avoid lengthening routes of communication and pedestrian travel. Disciplines which involve the public to a greater extent include Music, Law, Physical Sciences, Fine Arts and Continuing Education, and they are to be located on the perimeter of the academic zone.

Areas for activities and support include curricular, co-curricular and non-curricular functions. The central zone contains the Library, Student Union, central administration, student health and the religious centers. Peripheral areas contain the faculty club, armory, and Panhellenic Building. The area fronting on Ponce de Leon is designated for a new Activities Building to house basketball, various performances and convocations. It is located for direct public access.

Housing areas are divided between low-rise (two- to five-story) and high-rise. The low-rise areas are located to achieve a transition in density from the perimeter of the campus. The high-rise areas are designed to increase the number of bed spaces while also allowing more open space for recreation and views to the lake. The low-rise designation also applies to the fraternity area west of San Amaro Drive. This area should be developed as efficiently as possible, filling areas between existing houses first, in order to reserve effective areas for recreation. The existing low-rise married student apartments are also shown across U.S. Highway #1.

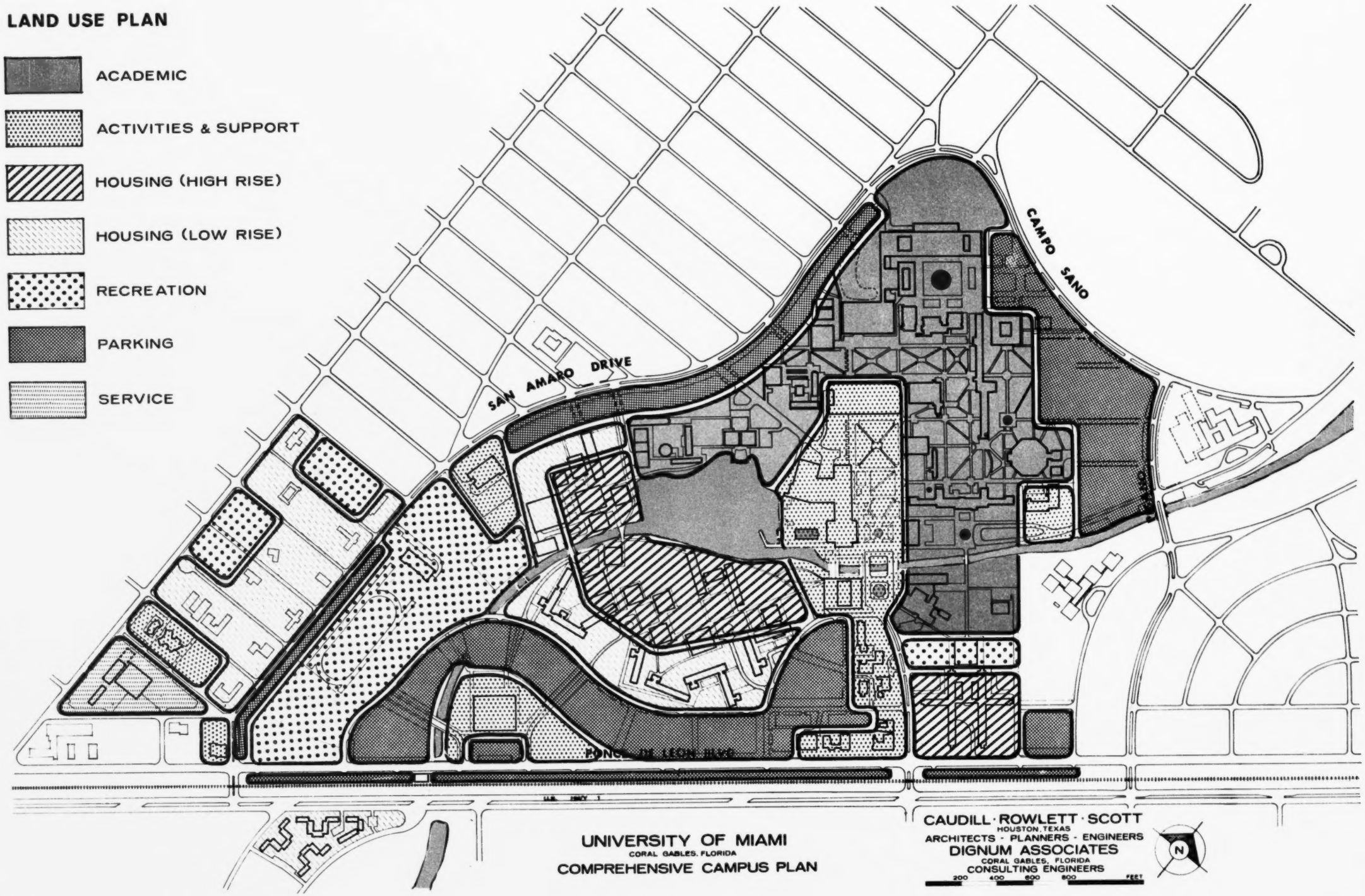
The recreation areas include the major large space remaining for intramural sports, physical education and varsity practice fields. Smaller areas are shown in the fraternity district and adjacent to the existing women's residence halls. If these areas become overcrowded, it is suggested that varsity practice fields be relocated off the main campus. The logistics of transporting organized teams to scheduled practice sessions would be simpler than those for physical education classes or casual recreation.

Parking is shown exclusively on the perimeter except around the proposed Activities Building. In this case, it was hoped that the lots could serve double purpose for resident and commuter students, and they were located closer to the academic area. This also allows direct bus access for visitors to the Activities Building.

The service area contains offices, shops and warehouses which support the operation of the physical plant.

## LAND USE PLAN

- ACADEMIC
- ACTIVITIES & SUPPORT
- HOUSING (HIGH RISE)
- HOUSING (LOW RISE)
- RECREATION
- PARKING
- SERVICE

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## BUILDING USE PLAN

The general uses of the planned buildings are shown in the table at the right, keyed by building number to the map on the next page.

The major housing area will be completely redeveloped (with the exception of Eaton Hall). This has allowed a maximum amount of design freedom in creating a desirable, though highly concentrated, urban residential complex. Several basic housing units are used in combinations of low linear buildings and high-rise towers. These units are based primarily on groupings of 40 beds per floor. Units 22D and 22F have 60 beds per floor. Unit 22A has 80 beds per floor.

The residence halls are designed to develop desirable outdoor spaces and gain enhancement from their lake setting. Heights and arrangement are deliberately varied to create interesting environment. Further details about the units as shown appear in the table below.

| Bldg. | No. Floors | No. Beds | Total Units | Total Beds |
|---|---|---|---|---|
| 22A | 3 | 240 | 1 | 240 |
| 22B | 3 | 120 | 2 | 240 |
| 22C | 4 | 160 | 3 | 480 |
| 22D | 4 | 240 | 1 | 240 |
| 22E | 5 | 200 | 1 | 200 |
| 22F | 5 | 300 | 2 | 600 |
| 23A | 6 | 240 | 1 | 240 |
| 23B | 10 | 400 | 2 | 800 |
| 23C | 12 | 480 | 3 | 1,440 |
| 23D | 14 | 560 | 2 | 1,120 |

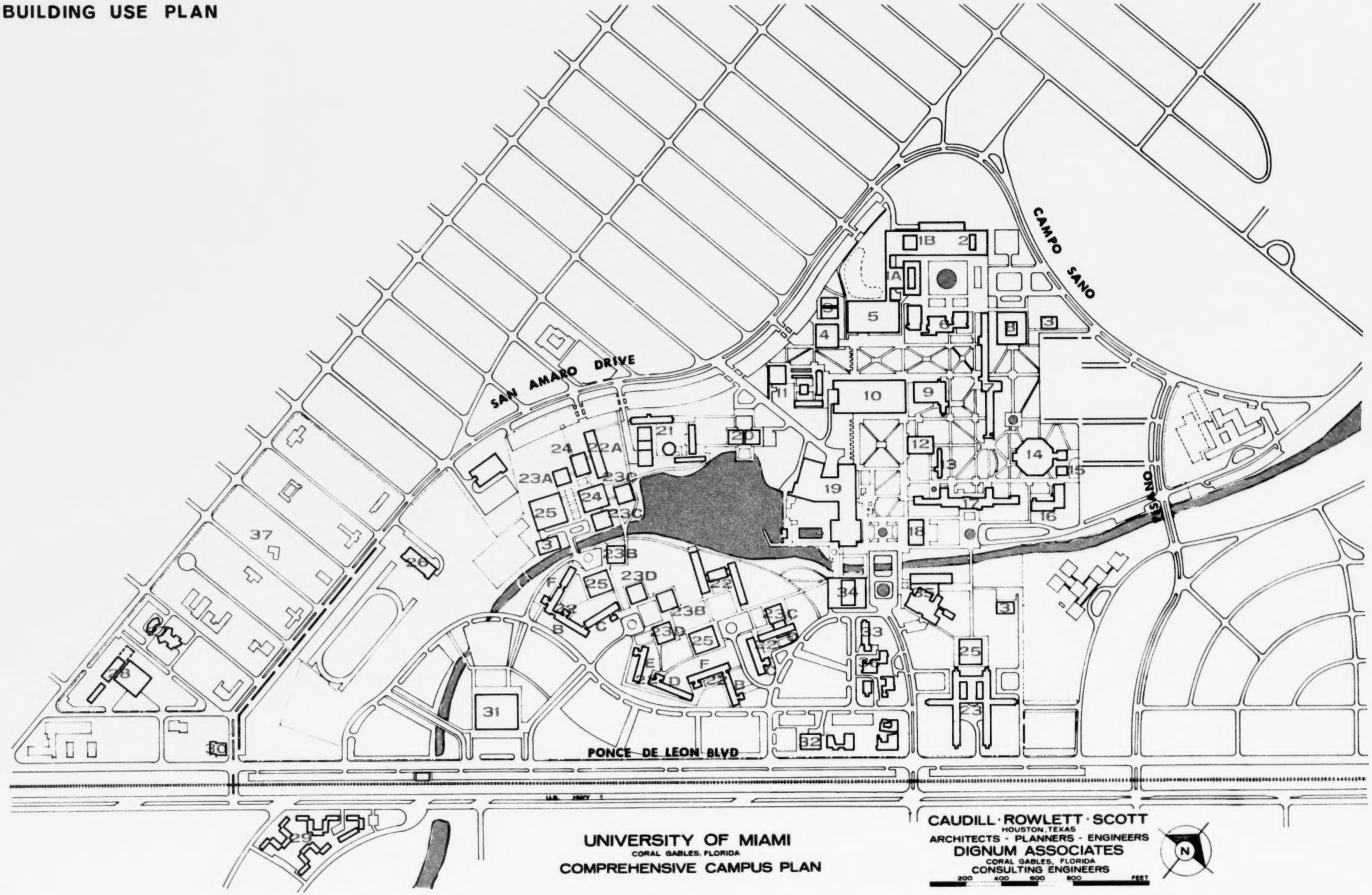


## BUILDING CHARACTERISTICS

| No. | Use | Area - Gross Square Feet |
|---|---|---|
| 1 | SCIENCE UNIT B | 320,000 |
| 2 | SCIENCE/ENGR INSTITUTES | 200,000 |
| 3 | CHILLERS | * |
| 4 | COMPUTER SCIENCES | 118,300 |
| 5 | SCIENCE UNIT A | 171,642 |
| 6 | SCHOOL OF ENGINEERING | 83,618 |
| 7 | MEMORIAL CLASSROOM BUILDING | 56,368 |
| 8 | CONTINUING EDUCATION/ CONFERENCE CENTER | 100,000 |
| 9 | FACULTY OFFICES | 73,823 |
| 10 | LIBRARY | 219,222 |
| 11 | SCHOOL OF LAW | 52,393 |
| 12 | CLASSROOM/OFFICE BUILDING | 50,000 |
| 13 | GRADUATE SCHOOL | 9,944 |
| 14 | LEARNING & INSTRUCTIONAL RESOURCES CENTER | 35,978 |
| 15 | TELEPHONE CENTER | 7,000 |
| 16 | PANHELLENIC BUILDING | 26,526 |
| 17 | MERRICK CLASSROOM BUILDING | 86,910 |
| 18 | CLASSROOM/OFFICE BUILDING | 100,000 |
| 19 | STUDENT UNION | 126,000 |
| 20 | DRAMA, COMMUNICATION ARTS & RECITAL HALL | 60,000 |
| 21 | SCHOOL OF MUSIC | 37,293 |
| 22 | RESIDENCE HALLS (Low Rise) | * |
| 23 | RESIDENCE HALLS (High Rise) | * |
| 24 | COMMONS | * |
| 25 | DINING | * |
| 26 | VARSITY LOCKER ROOM | 19,820 |
| 27 | FACULTY CLUB | 11,400 |
| 28 | CENTRAL SERVICE SHOPS & WAREHOUSE | 53,219 |
| 29 | MARRIED STUDENT HOUSING | 5,000 |
| 30 | OFFICE BUILDING | 250,000 |
| 31 | ACTIVITIES BUILDING | N/A |
| 32 | UTILITY SUB-STATION | 19,612 |
| 33 | STUDENT HEALTH BUILDING | 70,000 |
| 34 | CENTRAL ADMINISTRATION | 71,944 |
| 35 | ART DEPARTMENT & LOWE GALLERY | * |
| 36 | RELIGIOUS CENTERS | * |
| 37 | FRATERNITY HOUSES | |

* AREAS VARY

## BUILDING USE PLAN

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The low-rise housing units are shown with attached commons rooms to serve as small "living rooms" for each hall. The towers could contain similar spaces on each floor. Larger scale activities would take place in the dining buildings. These could be two-story structures to conserve ground area. A similar dining commons is to be built adjacent to the existing 1,400 bed women's residence hall.

The development of the Science Center will probably take place in several stages. It is recommended that the next phase include a high-rise building, number 1A on the plan, of 150 feet, the maximum height allowed by local ordinances. The tower can help achieve the density which will be required in the science area and leave a maximum amount of open space. Relocating the Weather Bureau radar operation, from the Library to the top of this tower, will raise the effective ceiling of construction from 120 feet to 150 feet throughout the campus. Number 1B is a lower unit, primarily for laboratories. Number 2 would be an additional unit for related agencies which need separate facilities. Numbers 1B and 2 should be built over a one- or two-level parking structure.

A classroom addition of 24,000 square feet can be accommodated on the south side of the Law School when needed for its expansion. This is shown as a four-story building, similar in scale to the remainder of the Law School complex. Its location will help complete the outdoor spaces of the Law School and screen the Library service entrance.

The Drama and Communication Arts center will include a 500-seat theater for drama and music recitals. The building as shown could eventually have a second theater and an outdoor Greek Theater on the lake shore.

The Humanities and Social Sciences, the School of Education and the School of Business Administration will occupy several buildings in the core of the campus. Upon completion of the new administration building, the Ashe Building will be converted completely to faculty offices. The Merrick Building and Memorial Classroom Building will be supplemented with the addition of two general classroom and faculty office buildings, numbers 12 and 18 on the plan. These buildings may not both be needed during the planning period, but they are shown to indicate desirable locations when required.

The Art Department is to be housed in a studio, classroom and office addition to the Lowe Gallery.

It is anticipated that the Continuing Education and Conference Center will begin with a fairly modest unit of from 10,000 to 20,000 square feet and expand as required. Its location was chosen to combine public access with the potential for use of teaching facilities available in the other academic buildings. The center would serve as headquarters for Continuing Education, Center for Advanced International Studies, and similar public-oriented agencies.

The Activities Building, number 31, will house varsity basketball, and be used for large-scale performances and convocations. The facility is currently being programmed for 7,000 to 8,000 seats.

## CIRCULATION AND PARKING PLAN

Five basic types of circulation systems are designated on the Plan. The Urban Streets are the major public arteries which provide access to the campus. Primary emphasis is given to access from Highway #1 and Ponce de Leon, with reduction of traffic through residential areas to the west and north. This is to be achieved by shifting public-oriented activities and the main campus entrance to the Highway #1 side along with most of the campus parking facilities. Traffic problems can be further reduced by completing a well-designed loop around the north side of the campus via Pisano Street. This will reduce the filtering of campus and hospital traffic through the neighborhood to the north. The entire loop should be four moving lanes divided by a landscaped median. Right-of-way for the proposed widening of Pisano Street can be acquired from vacant property and will preserve existing yards. It is also proposed that San Amaro be connected directly to Highway #1 as shown, and that the existing connection between Ponce de Leon and the highway (between San Amaro and the main entrance) be removed. This will facilitate traffic movement and remove an extremely dangerous condition. The proposed realignment of San Amaro and Campo Sano is an improvement involving only University- and City-owned property.



The campus streets and parking areas are those designated for general vehicular use. It is anticipated that the narrow parking strip on the west would be assigned to faculty, and the large area on the north to faculty and commuter students. The lots on the southeast would be used by commuter and resident students. The majority of the administrative staff and visitors would park in the areas south of the main entrance, including a structure below the administration building.

Another structure is shown incorporated into the area below the buildings for science expansion. Secondary campus entrances are established along San Amaro and Campo Sano for access to specific areas. These will have small parking and drop-off areas. Streets also penetrate into the residence hall areas for service, luggage moving and date transportation.

A system of major pedestrian walks is designated for joint use by small service and emergency vehicles which need access to the interior core. These should be designed as large walks to maintain the desired pedestrian environment, with sufficient strength and turning radii to accommodate vehicles. Their use for vehicles should be strictly controlled.

Drives to certain areas of heavy service will still be required and these are designated for service vehicles only. They should not be open to general traffic.

The parking spaces shown will accommodate 5,400 cars. This includes a strip between Ponce de Leon and the railroad, which would require use of both street and railroad right-of-way to be efficient. The amount of surface area shown is considered to be a saturation point. If further parking is required, it will necessitate parking garages in the areas designated for parking, or off-campus storage with a bus shuttle.

## CIRCULATION & PARKING PLAN

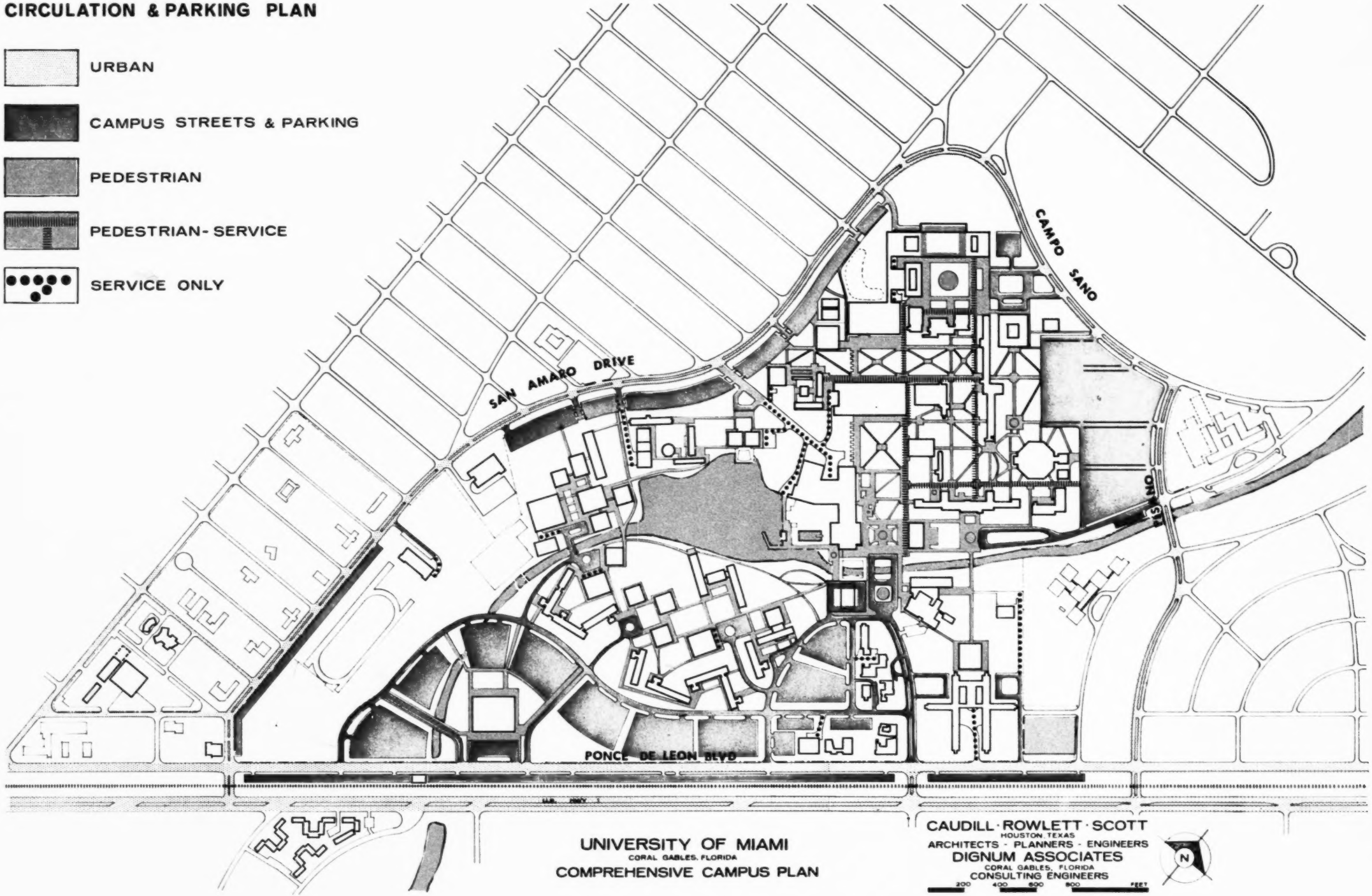
URBAN

CAMPUS STREETS & PARKING

PEDESTRIAN

PEDESTRIAN- SERVICE

SERVICE ONLY

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## DENSITY PLAN

Density is measured in terms of Floor Area Ratio (FAR). FAR is the ratio of gross floor area within buildings to the land area in the zone in which they are located. There is nothing "magic" about these figures, but they can be used to describe the relative efficiencies of utilization of various areas and to indicate saturation levels for different activities. A FAR of 1.0 is considered high for housing and activity zones. A FAR of 1.5 to 2.0 is considered high for academic areas. These densities produce an "urban" character. If the FAR in an academic area is less than 1.0, it indicates that the area is not yet being used effectively.

The Density Plan shows FAR figures for 18 zones in the table at the right. The three columns show the densities for the existing campus, those resulting from the Plan and recommended maximum limits. The zones are colored on the map to indicate four levels, from low to high FAR's, based on the buildings planned for the 13,000 FTE student level. The densities in most zones, with the exception of housing areas, will allow considerable further expansion. However, the arrangement and height of existing buildings impose physical barriers to achieving the most efficient densities in some areas of the campus.



| | | FLOOR AREA RATIO | | |
|---|---|---|---|---|
| Area | Use | Existing | Plan | Maximum |
| 1A | Activities | 1.07 | 1.07 | 1.2 |
| 1B | Academic | .51 | .74 | 1.0 |
| 1C | Academic | .26 | .50 | 1.5 |
| 2 | Academic | .23 | .35 | 1.0 |
| 3 | Academic | .41 | 1.13 | 1.5 |
| 4 | Parking | .06 | .02 | .23 |
| 5 | Parking | 0 | 0 | .25 |
| 6 | Academic | .31 | .65 | .75 |
| 7 | Activities | .63 | .63 | .75 |
| 8 | Housing | .22 | .27 | 1.0 |
| 9 | Activities | .22 | .14 | 1.0 |
| 10A | Housing | .41 | 1.15 | 1.15 |
| 10B | Parking | .26 | .27 | .27 |
| 11A | P.E., Recreation | .07 | 0 | .50 |
| 11B | Housing | 0 | 1.05 | 1.05 |
| 11C | P.E., Recreation | 0 | 0 | .50 |
| 12 | Housing | .08 | .11 | .50 |
| 13 | Parking | 0 | 0 | .25 |

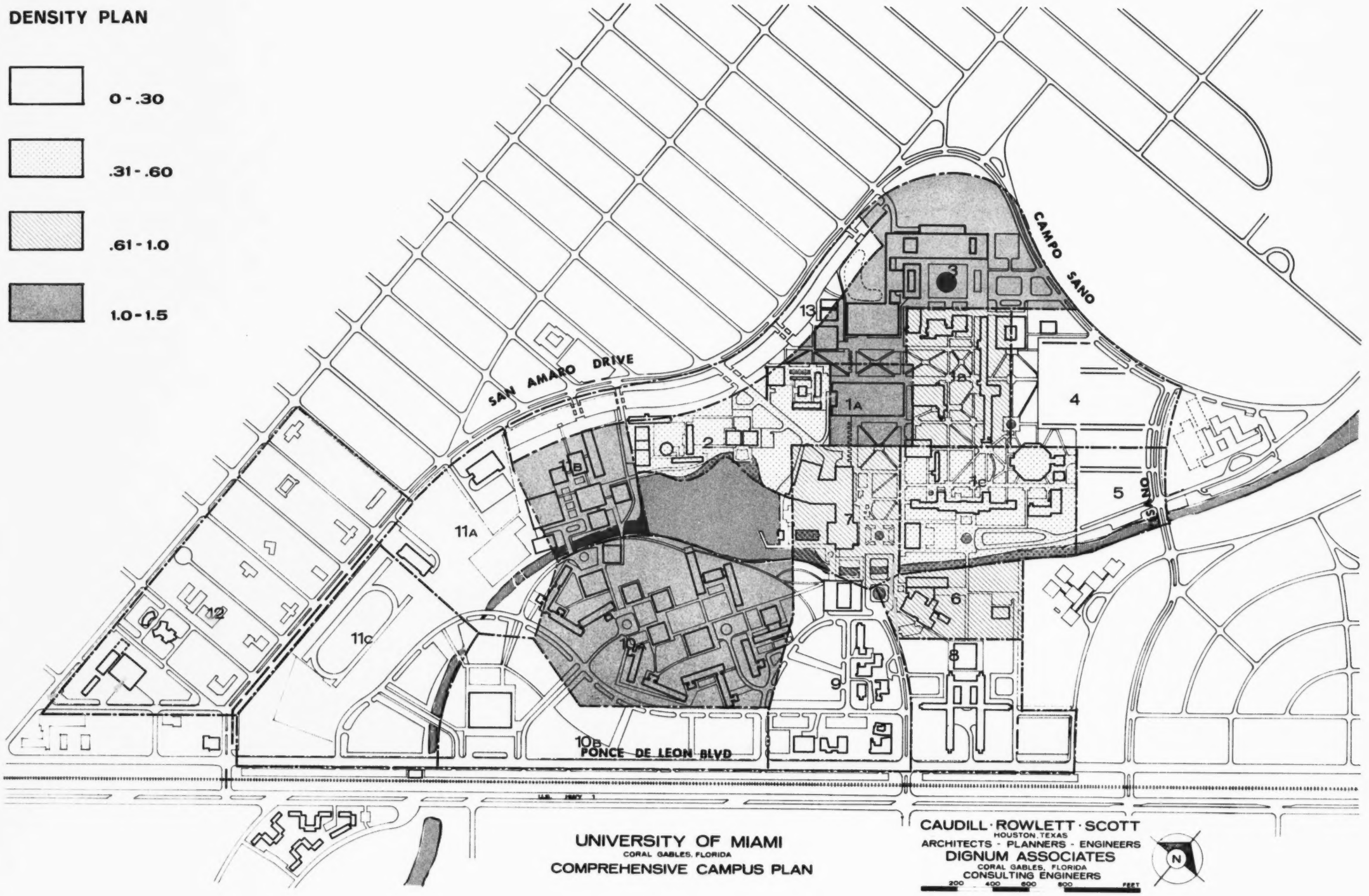
## DENSITY PLAN

0 - .30

.31 - .60

.61 - 1.0

1.0 - 1.5

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## CHILLED WATER & IRRIGATION SYSTEMS

Campus air conditioning requirements will be served with a "Central Plant System." This system basically is a continuous pipe loop around the campus with strategically located central plant water chilling and pumping stations. The considerations which led to the determination of the size and routing of the pipeline and the number and location of central plant stations were those which would produce the most economical and flexible system.

The system is designed to grow at a rate compatible with campus growth. During the growth process the central plants will serve as "zone stations." The piping systems will develop from them as needed to serve new construction but in a manner which will serve the ultimate goal. Upon completion of the final section of piping, the system will become a one-pipe loop encircling the campus and supplying low-temperature water, in a clockwise direction, to all parts of it.



The system is a closed one, thereby minimizing the need for make-up water and the necessary water treatment. Plants are located to achieve a nearly balanced load in each section, and to take advantage of all possible diversity while operating at the best combination of pumping and piping circumstances.

Equipment maintenance is more easily and economically accomplished. The disruption of campus activities due to maintenance procedures is practically eliminated and reliability is increased. Future buildings will be free of requirements for cooling towers and large equipment rooms. This will permit a freer hand architecturally and effect savings normally attributed to these requirements.

The lawn irrigation system, as shown on the Master Plan, divides the campus into a number of sectors. Each sector has a shallow well and pump supplying a zoned distribution system. Large coverage, moveable type sprinkler heads provide maximum irrigation at minimum cost. Shallow wells will be used for irrigation supply because of reliability and low cost. Salt water intrusion must be considered and the wells located in areas free of salt. The critical salt line follows roughly the west side of the canal, therefore shallow wells located along the western border of the campus are the only available source of fresh water supply.

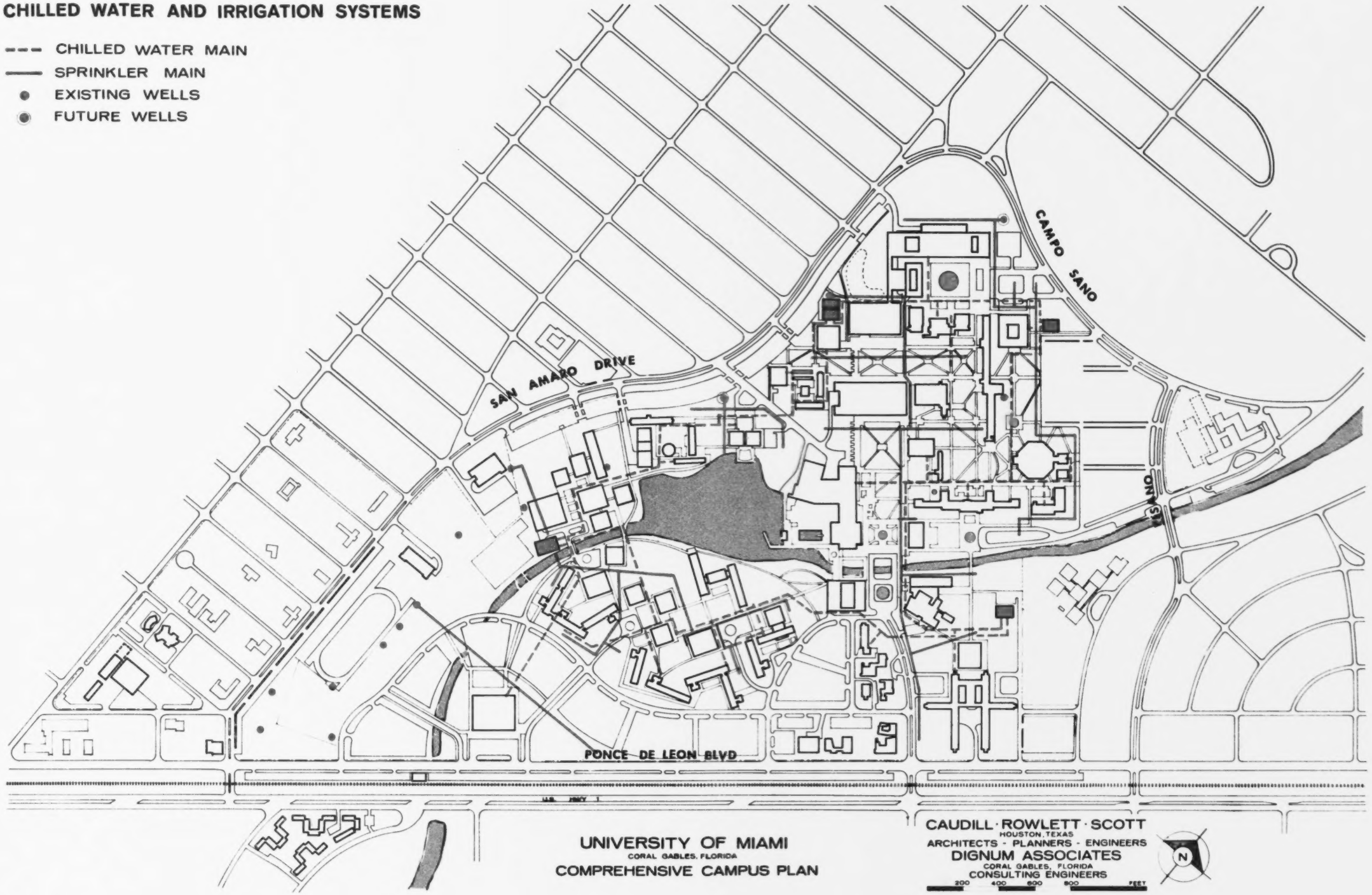
## CHILLED WATER AND IRRIGATION SYSTEMS

--- CHILLED WATER MAIN

—— SPRINKLER MAIN

● EXISTING WELLS

◉ FUTURE WELLS

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## GAS & WATER DISTRIBUTION

Gas service to the campus is from a private utility company, the City Gas Company. The existing mains are installed in the form of two major loop systems and several large branch lines serving individual buildings. All buildings are separately metered.

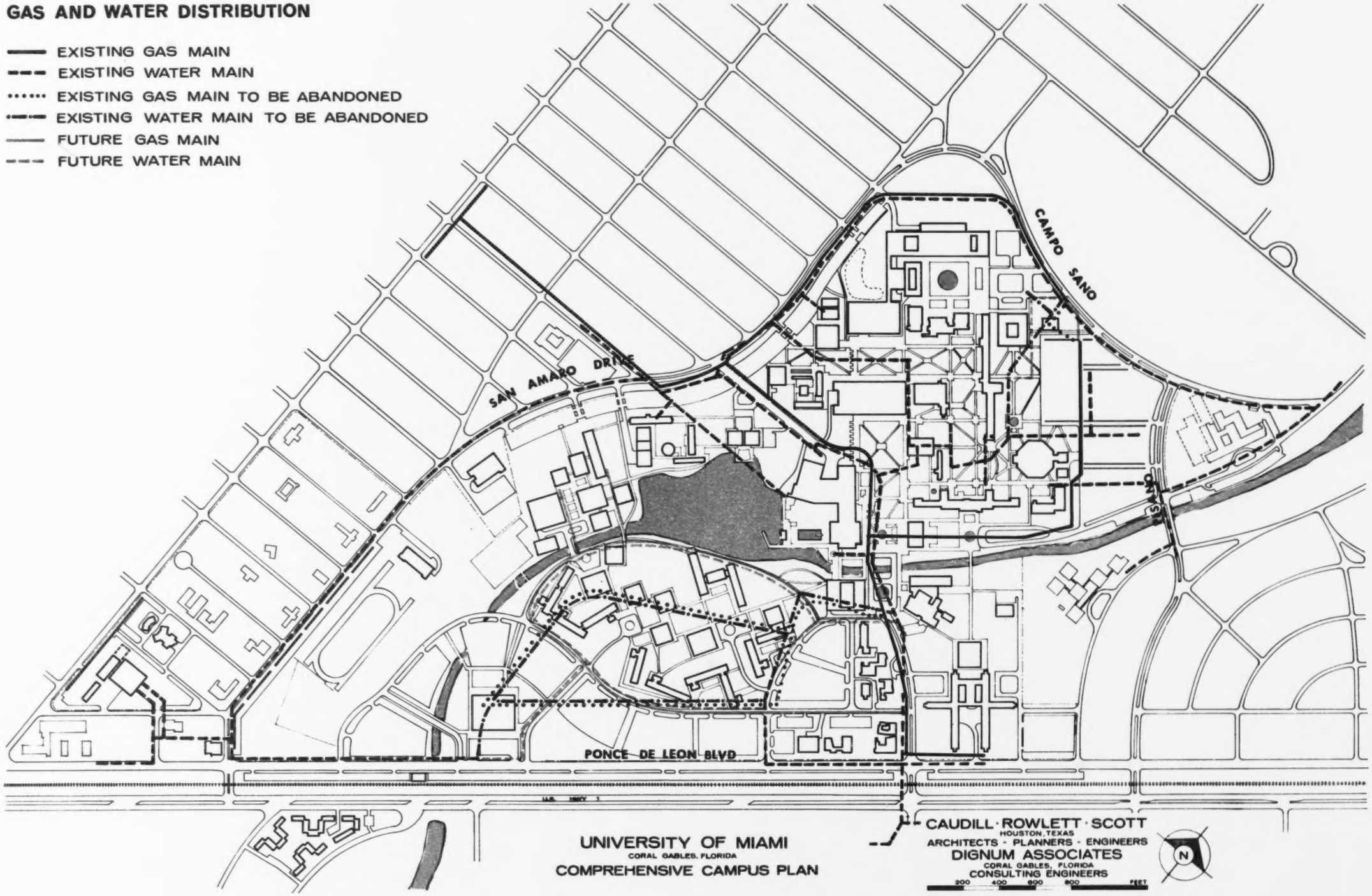
The new Master Plan will make use of as much of the existing gas mains and services as is practical. New mains will conform with the revised street plans for ease of installation, accessibility and maintenance.

Consumers Water Company, also a private utility company, supplies water service to the campus. Present service consists of a line generally around the perimeter with several cross-campus lines forming a loop system. This perimeter line is fed from two directions which forms an adequate system of water service and fire protection. Each building has its own water meter.

The new plan will retain the same general concept of service except for sections of mains, which will be relocated to conform to the revised street pattern.

## GAS AND WATER DISTRIBUTION

- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING GAS MAIN TO BE ABANDONED
- EXISTING WATER MAIN TO BE ABANDONED
- FUTURE GAS MAIN
- FUTURE WATER MAIN

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## ELECTRICAL PLAN

Electrical service for the University of Miami campus is provided by the Florida Power and Light Company.

The original installations were served by an overhead pole line distribution system. These buildings include the temporary Classroom Building, the dormitories, dormitory office and the Student Union Building.

This high voltage (7620/13200) system was owned and maintained by the University with primary metering as the source. As new buildings were added, these overhead lines were extended. In many instances, electric service to the new buildings was brought in by underground conduits with transformer vaults built within the buildings. The overall system soon became unmanageable and a planned underground expansion of the primary distribution system was initiated. By judicious planning, it was hoped to gradually replace sections of the overhead system, install additional underground duct banks, make provisions for temporary services against unforeseen outages, and generally to proceed to a completed underground system for the whole campus.

This work was planned in phases, the extent of the work covered in each phase being determined by the definite needs of new buildings to be built in certain areas and the realities of the budget. Very little telephone duct work was installed at this time, most of the work being by direct burial cable or overhead lines.

With the planned underground system substantially completed, negotiations were originated with the Florida Power and Light Company. These negotiations resulted in the utility taking over all primary distribution lines and services, transformers and switching stations. With the take over went responsibility for maintaining a highly complex system.

The University still retains the right and the obligation of planning the extent and type of service that will best serve the overall complex of new utilitarian, classroom, administration and residential buildings.

The extent of the present underground system is shown on page 35. With more overhead than underground lines still prevailing, the planning of the future underground system becomes a matter of prime importance.

The plan as given in this study is an attempt to lay out the general routing and the extent of the underground utility lines required to serve both the existing plant and the future buildings of all types as indicated by the Master Plan.

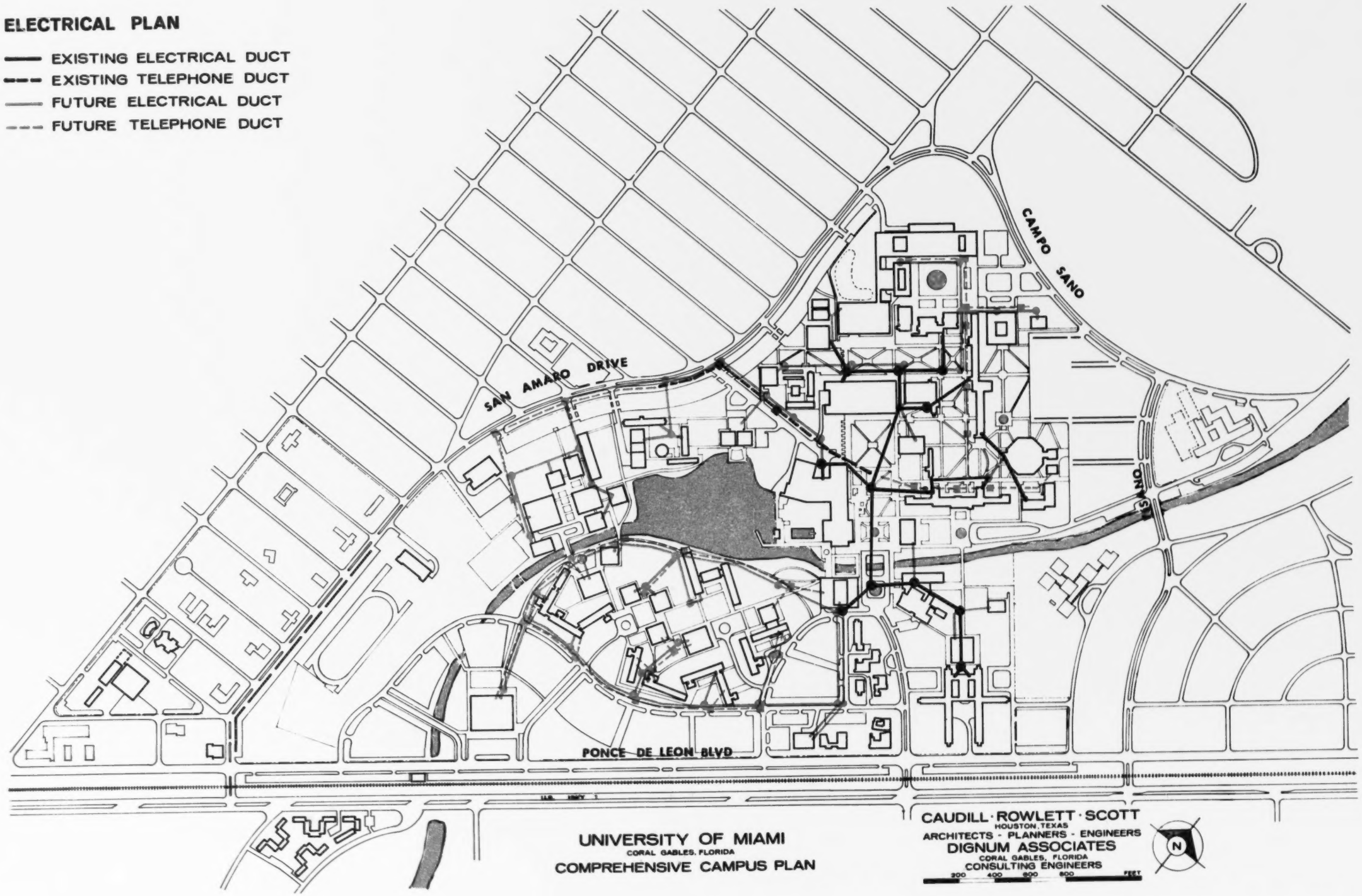
It is desirable to incorporate as much of the underground system as possible in the new layout. Electric duct lines will be installed in the same general areas and routes required for other utilities such as gas, domestic and chilled water.

Duct banks for telephone service will be installed following generally the same routing as the power ducts. Direct burial cable installation will be eliminated. All new duct banks will incorporate ducts for future communication and fire alarm services.

The extent of the future underground system is shown on page 35.

## ELECTRICAL PLAN

— EXISTING ELECTRICAL DUCT
- - - EXISTING TELEPHONE DUCT
—— FUTURE ELECTRICAL DUCT
- - - FUTURE TELEPHONE DUCT

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200 400 600 800 FEET

## SANITARY & STORM SEWERS

The present campus system consists of both septic tanks and a sewage collection system. It, like the storm water disposal system, evolved to serve specific areas and buildings as they were constructed. A considerable portion of the present campus has been connected to the sewage treatment plant. A system of small lift stations was installed in order to utilize existing building sewers as much as possible. As the shortcomings of this system became apparent, extensions were added to eliminate as many of these lift stations as possible.

The Master Plan endeavors to accomplish the following:

The Coral Gables Sewage Treatment Plant is to be phased out by 1968. After that time, the sewage will be pumped through large interceptor mains into the City of Miami system. The proposed system will serve the entire campus and all septic tanks will be eliminated.



The system will be designed to eliminate as many of the existing sewage lift stations as possible.

The system will pump directly into the interceptor main on South Ponce de Leon.

Lines have been relocated from those locations which interfered with the campus plan.

Where possible, the lines have been located along service drives or proposed streets for accessibility and maintenance.

In the past, the storm water disposal facilities have been designed and built to serve specific areas and buildings as they have been erected.. Such provisions have included widespread use of soakage pits in addition to drainage structures discharging to the campus lake and canal. The facilities have been largely unrelated to campus development.

The present program is devised to insure an economical, orderly and functional development of site drainage to handle the increasing land use demands.

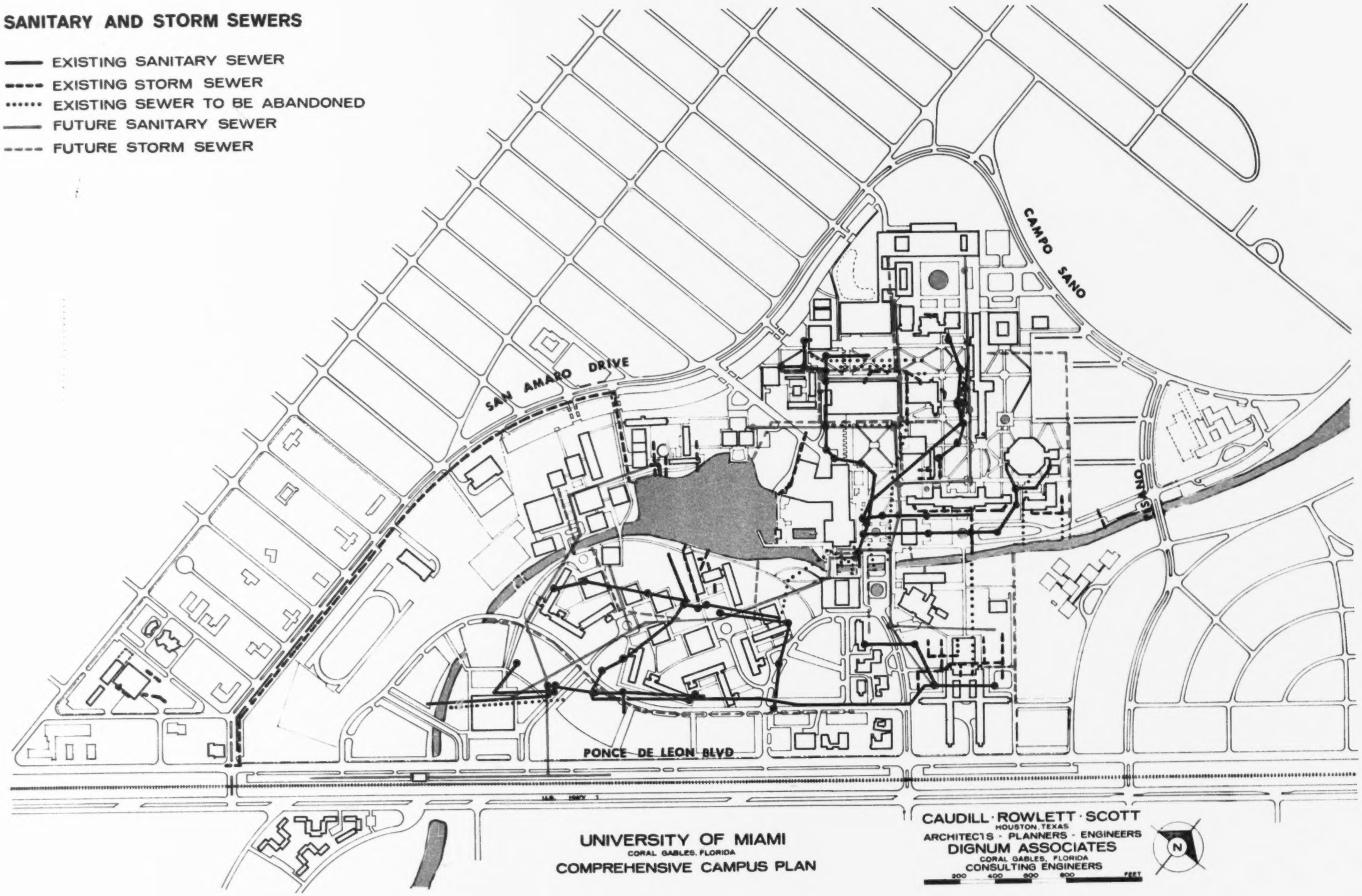
Lines have been relocated from those areas where there is interference with proposed construction, walkways or landscaping.

Where possible, these lines have been located along service drives for accessibility for maintenance.

The purpose here is to provide positive draining storm conduits to the campus lake and canal.

## SANITARY AND STORM SEWERS

- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING SEWER TO BE ABANDONED
- FUTURE SANITARY SEWER
- FUTURE STORM SEWER




UNIVERSITY OF MIAMI
CORAL GABLES, FLORIDA
COMPREHENSIVE CAMPUS PLAN

CAUDILL · ROWLETT · SCOTT
HOUSTON, TEXAS
ARCHITECTS - PLANNERS - ENGINEERS
DIGNUM ASSOCIATES
CORAL GABLES, FLORIDA
CONSULTING ENGINEERS

200 400 600 800 FEET

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## IMPLEMENTATION

This report is a "still shot" from the moving picture of campus development. It is a dynamic movie; its plot is continually altered by ad libs. Assumptions and plans must be changed to respond to the current situation, but the basic concepts must not be lost in the process.

A key to effective implementation is communications. This process has had a good start in public reviews of the preliminary plans with faculty and city officials. This plan report should now be distributed to as broad an audience as possible to assure interest and understanding, and to encourage feedback of ideas. Subsequent revisions in the Plan should be reviewed through the same channels to assure continuity and awareness that the plan is a dynamic tool.

One of the best ways to assure good implementation is to maintain responsibility at a high administrative level. This procedure was instrumental in developing the plan. An officer should continue to be designated as the University planning official and should be furnished staff to perform key advisory and administrative functions. Among these are:

1. Participation in programming of buildings and other physical plant facilities.

2. Review of all projects for conformity to the principles of the Plan.

3. Participation in preparation of capital budgets.

4. Selection of consultants as needed.

5. Coordination with City, County and State planning officials.

6. Systematizing the review and updating of the Plan.

7. Keeping administration and faculty advised of planning objectives relative to their responsibilities.

8. Reporting regularly to the President on the progress toward each of the recommendations made in this report and on any deviations from the Plan.

The effectiveness of the physical environment will depend on the subdivision and organization of space. This, in turn, is a function of the design quality of each project, no matter how small or apparently insignificant. Unity of the campus must be obtained without sacrificing the variety needed to stimulate the senses. Permitting variety in architectural expression can open the door to the most creative and functional building solutions; but, without the highest quality of architectural design, it can also result in chaos. Balance and restraint must be maintained. Every project must be considered as a part of the total campus, and take its proper place with its neighbors. This attitude must prevail in the design of buildings, landscape, parking facilities and furnishings, both exterior and interior.

It is the follow-through that worries planners. They know from experience that there are many pitfalls - the temptation to place expediency over principle, the tendency to place immediate needs above long-range goals, that ever-present tyranny of dollar cost as distinguished from value received. They know, too, about the many pressures, both from within and without, to ignore the Plan in the interest of some one segment of the University or its public. Only with continuing, intelligent and dedicated leadership can these obstacles be overcome.